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# BACKGROUND INFORMATION and Approach to Policy



## NORTHWESTERN ONTARIO

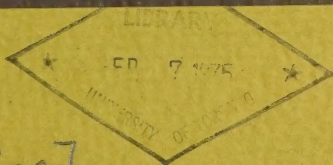
## MINISTRY OF NATURAL RESOURCES STRATEGIC LAND USE PLAN



Ontario

Ministry of  
Natural  
Resources

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# Background Information and Approach to Policy

## Northwestern Ontario Planning Region

Ministry of Natural Resources  
Strategic Land Use Plan

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Minister

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First Edition  
Second Edition

September, 1974  
November, 1974







## Reader's Caution

The purpose of this report is to stimulate comment and discussion of the candidate policies contained herein. The discussion and any subsequent revisions are designed to ensure that the best combination of expressed values of the people of Ontario is reflected in the policy statements.

The policies proposed in this report have been formulated carefully within the Ministry over the past year to provide an initial basis for public discussion. The most obvious conflicts have been eliminated, but the complete policy package has not yet been fully integrated.

The policies should now be scrutinized and commented upon by the public, government ministries and other interested groups. After this review and discussion, these policies, or modifications of them, will be fully integrated and will become the objectives of the Ministry of Natural Resources Strategic Land Use Plan for Northwestern Ontario.

After the integrated policy or objective package has been agreed upon, the next stage of the planning process will involve the preparation and evaluation of alternative land use plans. This stage will also include extensive public participation, and it may well require further revisions of the policies.

However, it should be stressed at this time that the needs and desires of all the people may not necessarily and perhaps cannot be fully met. Certain trade-offs and compromises will likely be required, and the full extent and nature of these can only be ascertained by following the planning process to its conclusion.

## Preface

The Ministry of Natural Resources has been involved in land use planning for more than 25 years. This can be explained by the fact that many of the objectives assigned to the Ministry require large areas of land. These are expressed in the general goal for the Ministry of Natural Resources:

To provide opportunities for outdoor recreation and resource development for the continuous social and economic benefit of the people of Ontario and to administer, protect and conserve public lands and waters.

Until recently, most of the plans prepared were either single purpose or short term, and the results tended to foster controversy and inefficiencies. Today, with increasing demands for land, the need to co-ordinate the planning approach is widely recognized. This led to the concept of a Strategic Land Use Plan; that is a document to state in broad and comprehensive terms how the Ministry of Natural Resources wishes to use or influence the use of land in Ontario.

The Strategic Land Use Plan will be the overall guideline for co-ordinating the land using programs of the Ministry. The plan will be made within the framework of the Regional Planning program of the Ontario Government, and will serve as the Ministry's major input to that program.

To further emphasize and clarify the Ministry's role in land use planning, it should be explained that the Ministry of Natural Resources may be unique among ministries because of its broad connection with land. While other ministries are generally concerned with only particular parts of the Province, the Ministry of Natural Resources is actively involved throughout Ontario from Lake St. Clair to Hudson Bay and from Lake of the Woods to Eastern Ontario. The Ministry is the custodian of Crown Land in Ontario, and a large part of its objectives are achieved there. However, other parts of the objectives are achieved by the use of private land. Examples of the latter are the production of game and the extraction of aggregate in Southern Ontario. Therefore, the Strategic Land Use Plan must be concerned with all the land of Ontario.

The Strategic Land Use Plan is being prepared in two parts. Part One is the plan for the Province of Ontario as a whole, and Part Two will consist of the plans for each of the three planning regions - Northwestern, Northeastern and Southern Ontario. Together, these four plans will comprise the Strategic Land Use Plan.

This report is Phase 1, Background Information and Approach to Policy, for the Northwestern Ontario Planning Region. It represents a summary of the information which has been collected and analyzed over the past eighteen months. The purpose of this report is to solicit the comments of the

public and other government ministries concerning not only the background information, but more particularly the candidate policies discussed in Chapter VIII.

This report and the comments which it elicits will provide the basis for subsequent discussions to refine the policy and finally to prepare the land use plan for Northwestern Ontario.



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ADMINISTRATIVE REGIONS  
AND  
PLANNING REGIONS



# I. The Region in Perspective

The Northwestern Ontario Planning Region is a vast area of land and water located in the northwestern extremity of Canada's central province. Because of its location, the Region has in many ways been more closely related to Manitoba and the West than to Southern Ontario and the rest of Eastern Canada. Toronto is nearly 900 miles from Thunder Bay by road, while Winnipeg is slightly more than 400 miles away, and Vancouver is closer to the Region than Halifax.

The Region is bounded on the south and the west by the United States and Manitoba respectively. The eastern border is the Thunder Bay Judicial District boundary projected northward, and the northern border is a line joining the intersection of the former and the 54th parallel of latitude with the intersection of the 56th parallel and the Manitoba boundary.

(Map 1)

The Planning Region coincides with the Provincial Government's Northwestern Planning Region, and has an area of approximately 160,000 square miles or 40 percent of the Province. It includes four Ministry of Natural Resources Administrative Regions; all of the Ministry's Northwestern Region; all but a small portion of the North Central Region; and small parts of the Northern and Northeastern Regions.

The Region is very sparsely populated. According to the 1971 Census there were nearly 225,000 people living in Northwestern Ontario, or approximately 3 percent of the Provincial total. This proportion is expected to be maintained to the year 2001 when it is planned that there will be about 335,000 people living in the Region.<sup>1</sup>

This discrepancy between the large size of the Region and small population is further exaggerated when the population distribution is considered. Over two-thirds of the population live in five communities (Thunder Bay, Kenora-Keewatin, Dryden, Fort Frances and Atikokan), and the remainder are scattered throughout the Region in concentrations of less than 5000 people.

The existence of such a small population widely scattered throughout this area rich in natural resources, is the source of the Region's most serious problems and challenges. At the same time, this combination of people and resources offers great potential and opportunity for the future.





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SITE REGIONS



## II. Natural Setting

The 160,000 square miles of the Northwestern Ontario Planning Region exhibit a wide diversity of climatic, physical and biological conditions. The fact that eight of Hills' site regions occur within the Region gives some indication of the variation in biological productivity.<sup>1</sup> (Map 2)

### 1. Climate

The Region has a modified continental climate. Temperature extremes are moderated by the effect of both Hudson Bay and Lake Superior. Mean daily maximum temperatures in January range from 18°F near Lake Superior to 0°F in the northernmost part of the Region. Daily maximums in July vary from 78°F in Rainy River District to 69°F in the Hudson Bay Lowland.<sup>2</sup>

The mean annual growing season lasts 175 days in Rainy River as compared to 131 days in Patricia. Annual precipitation varies from 34 inches near Lake Superior to 24 inches in Rainy River and Thunder Bay to 110 inches along the north shore of Lake Superior east of Nipigon.

<sup>1</sup> G.A. Hills, Regional Site Research, (Forestry Chronicle, Vol. 36, Number 4, 1960).

<sup>2</sup> L.J. Chapman and M.K. Thomas, The Climate of Northern Ontario, (Canada Dept. of Transport, Climatological Study Number 6, 1968).

## 2. Bedrock Geology

The Region lies almost entirely within the Canadian Shield, a large area underlain by ancient volcanic sedimentary and metamorphic rocks formed in Precambrian time. Paleozoic sedimentary formations, younger than Precambrian age, occur at the extreme northern part of the area, forming the Hudson Bay Lowland.

During early Precambrian (Archean) time, the earth's crust was subjected to several periods of fracturing, mountain building, volcanism and erosion. Greenstone belts or zones of metamorphosed, complexly folded volcanic and sedimentary and intrusive rocks were formed at this time, separated by large expanses of banded gneiss and granitic rocks. These greenstone belts, trending easterly in the southern two thirds of the Region and southeasterly in the northern third, indicate a complex geologic history. (Map 3)

The Superior Province of Northwestern Ontario can be subdivided into sub-provinces on the basis of the predominant rock type within the greenstone belts or on the absence of greenstone belts. (Map 4) Each of the major rock types and therefore the sub-provinces are characterized by certain types of mineralization. The individual greenstone belts have the highest potential, particularly for base metals, iron and gold.

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PLANNING REGION  
BEDROCK GEOLOGY











Sedimentation and volcanism during middle to late Precambrian (Proterozoic) times deposited thick sequences of relatively flat-lying sedimentary and volcanic rocks in the Thunder Bay-Lake Nipigon-Terrace Bay area. These formations were intruded during the late Precambrian by sills and dikes of diabase and gabbro.

Subsequent glacial erosion scoured the Archean terrain to a rolling topography of low relief and sculptured the Proterozoic rocks into the spectacular, strongly broken topography so typical of the Thunder Bay-Lake Nipigon area.

One of the most significant economic features of the Precambrian Shield is its vast mineral potential. Of particular significance are the Archean greenstone belts, with which the majority of economic mineral deposits are associated. The bulk of current mineral production in the Region comes from the thick assemblages of volcanic and sedimentary rocks and associated intrusive rocks forming the belts.

Numerous gold, silver, and copper-lead-zinc deposits are associated with the volcanic rocks. Banded iron formations, gold and silver are commonly found in the sedimentary formations. Intrusive rocks associated with greenstone belts contain deposits of copper, nickel and platinum. Uranium and molybdenum occurrences are known at Favourable Lake in the Gods Lake Belt near the margin of the Berens River Block. Uranium is also known in the Tustin-Bridges area near Kenora.

Proterozoic sedimentary rocks of the Thunder Bay area host deposits of iron ore, lead, zinc and silver and have moderate potential for copper. Certain gabbro intrusives contain economic accumulations of copper, nickel and platinum. One such deposit is being developed by Great Lakes Nickel in Pardee Township. Proterozoic volcanic rocks have potential for copper mineralization.

Other kinds of intrusive rocks, the alkalic-carbonatite complexes are sparsely scattered throughout the Planning Region. These are shown on Map 3 and contain deposits or potential deposits of columbium, copper, iron, titanium, uranium and rare earths. The Coldwell Complex has been the object of extensive exploration.

Also of interest are occurrences of amethyst near Thunder Bay, and of lithium-bearing pegmatite near Lake Nipigon and Lac du Bonheur.

### 3. Surficial Geology, Soils and Topography

Glaciation, during the Pleistocene period, has modified the surficial features of the Region. It smoothed over much of the bedrock surface and deposited a mantle of unconsolidated material over much of the area. Portions of this mantle have been modified by post glacial lake, stream and wind action resulting in the pattern of soil texture and depths shown on Maps 5 and 6.

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GENERALIZED SOIL TEXTURE







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GENERALIZED SOIL DEPTH.





Five main surficial feature and soil texture areas have been identified, and these are described briefly as follows:

a) Recent Organic Material Over Post Glacial Marine Clay

This area, a portion of the Hudson Bay Lowland, is located in the northern-most part of the Region. It is an area of very poor drainage. Extensive acidic bogs cover most of it, and form a mat of organic material over the underlying post glacial marine clay. This area is generally low in biological productivity.

b) Lacustrine Clay and Silt

Shallow freshwater lakes covered large portions of Northwestern Ontario as the last glacier retreated. This resulted in the deposition of deep clays and silts west of Fort Frances, north-west of Dryden, near Thunder Bay, around Lake Nipigon, north of Longlac and around Marathon. These lacustrine deposits are significant because of their relatively high biological productivity. The areas around Dryden and Fort Frances are the most important agricultural lands in the Region.

c) Sand and Gravel Deposits

Lacustrine sand deposits are located in the area north of Lake Nipigon. Outwash deposits of stratified granular material occur in the area between Ignace and Lake Nipigon. In the same general area there are also extensive fine sand and silt deposits of aeolian origin.

Eskers and moraines occur throughout the Region, with a significant concentration north-east of Lake St. Joseph. These porous, nutrient poor areas have low productivity. However, with the exception of the aeolian deposits, they are the best source of aggregates for construction. Eskers, by their nature also provide good road locations.

d) Ground Moraine

This is by far the most widely distributed surficial type in the Region. Generally it consists of a sandy till, mixed with large amounts of boulders, stones, gravel and very little clay, and is less than three feet in depth. A notable exception, however, is the Rainy River area, where the clay till averages ten feet in depth. With this aforementioned exception, ground moraine areas are of lesser productivity than lacustrine clays and silts.





e) Bedrock Areas

Bedrock outcrops occur throughout the Region, with the most extensive areas occurring along the Ontario-Manitoba border, north of Kenora. These are noted for their very low productivity because of a lack of soil cover.

The majority of the Region has flat to weakly broken topography. A band south of the 50th parallel contains most of the moderately broken topography, with small areas of strongly broken relief near Lake Superior and Lake Nipigon. (Map 7)

#### 4. Water

The Northwestern Region is known for its large number of lakes and rivers. There is no accurate estimate of the number of lakes in the Region, but the number is probably in excess of 150,000. Over 10 percent of the Region is covered by water, and this represents nearly 30 percent of the freshwater area of the Province.

Some of the largest lakes in Ontario, other than the Great Lakes, are located in the Region. There are more than 120 lakes over 10,000 acres in the Region and this represents over 72 percent of lakes in this category in the Province. Some of the largest include, Lake Nipigon, Lake of the Woods, Lac Seul, Big Trout Lake, Lake St. Joseph, and Rainy Lake.

Map 8 shows the three major watersheds. The northern half of the Region is within the Arctic Watershed, and is dominated by four great river systems; The Albany, Attawapiskat, Winisk and Severn. The southern half is divided between the Winnipeg River system on the west and the Lake Superior drainage on the east.

A point of interest is the fact that three watersheds in the upper Albany drainage system have been dammed, and their flows can be diverted to other watersheds for hydro electric power generation. Two of these, the Ogoki Reservoir and Long Lake can be diverted into Lake Superior drainage; and Lake St. Joseph can be redirected into the Winnipeg River system.

There is an abundance of fresh water in Northwestern Ontario. The supply, in the beginning, is a function of climate, precipitation in particular. What is not lost by evaporation or transpiration becomes ground water or surface water.

Bedrock or surficial deposits which transmit, hold and yield ground water in usable quantities are called aquifers. Though there is as yet little extensive data on aquifers in the Region, generally it can be said that the bedrock of the Shield has poor aquifer characteristics, and that deep surficial deposits of coarser material such as sand or gravel, have the best aquifer characteristics. Ground water wells are the means of supply for households in most rural areas and for some communities.







The numerous streams and lakes, exclusive of Lake Superior, together account for about 10 percent of the total area of Northwestern Ontario, and contribute an average daily flow of some 10 trillion gallons. They thus provide a copious source and supply of water.

Both the surface water supply and, to a lesser extent, the ground water supply, however are subject to considerable variation from year to year and from month to month. The ratio of the usual winter minimum and spring maximum is typically in the order of 1:20 or more. Extremes may thus sometimes present problems.

Water quality is of more concern generally than water quantity. Each use of water has certain water quality requirements. Various impurities, natural or man-made, may impair its usefulness.

Mercury is present in many of the waterbodies of Northwestern Ontario and is the cause of some recent concern. While in some instances this mercury may have originated from industrial activities, more generally it has come from natural sources. Certain natural mineral deposits release mercury into the environment. It then becomes concentrated in fish, particularly the predator species, living in affected waters. Among the most important fishing waters affected are the Thunder Bay area of Lake Superior, Rainy Lake, Lac Seul, Lake St. Joseph, and parts of the English River. Under the present standard, concentrations of greater than 0.5 parts per million in fish

flesh render it commercially unmarketable for human consumption in Canada. However, standards of acceptability vary throughout the world and alternative markets for such fish exist elsewhere. Nonetheless, there are instances where the jobs of Indians and tourist operations may have been jeopardized by this mercury contamination.

The major water quality problems stem from wastes discharged by communities and by industries, particularly pulp and paper and mining operations. Where such waste discharges are small in relation to the volume of stream flow or to the size of the receiving lake, the natural assimilative capacities may be adequate to decompose organic materials, disperse suspended solids, or dilute toxins to harmless levels. Heavy concentrations and large volumes of waste, however, have caused degrees of pollution in a number of localities across Northwestern Ontario. Among these are the Rainy River downstream of Fort Frances-International Falls, the Winnipeg River immediately downstream of Kenora, the Wabigoon River downstream of Dryden, the lower Kaministiquia, Neebing and McIntyre Rivers and Inner Harbour of Thunder Bay, Nipigon Bay in the vicinity of Red Rock and Nipigon, Jackfish Bay east of Terrace Bay, Peninsula Harbour in the vicinity of Marathon, and some small lakes and streams in the area of Manitowadge. In recent years, however, improvements have been made in waste treatment in such localities.







Eutrophication, though not at present, is ultimately the most significant water quality problem facing the Region. This "aging" of waterbodies results from an accumulation of nutrients from natural or human sources, and produces chemical changes in water, excessive growth of algae, and the succession of less desirable aquatic species, adversely affecting virtually all users. Signs of eutrophication are rare in Northwestern Ontario. Notably, however, Lake of the Woods continues to show a noticeable growth of algae which may be a warning of an advanced stage of eutrophication.

## 5. Forests and Wildlife

There are three forest regions in Northwestern Ontario.<sup>1</sup>  
(Map 9)

An area of the Great Lakes-St. Lawrence Region occurs south of a line between Thunder Bay and Kenora. Here the typical tree species association is pine, birch and poplar. However, logging and recent fires have brought balsam fir and white spruce into prominence as well.

The remainder of the Region is covered by the Boreal Forest, with the dominant species being white and black spruce, jack pine, birch and poplar. A small area of Barren occurs at the northern limit of the Region. In this area the species are essentially the same as those further south, but they are much smaller, and treeless bogs are prevalent.

<sup>1</sup> J. S. Rowe, Forest Regions of Canada, (Canada Department of Northern Affairs and National Resources, Ottawa 1959).



### III. History, Population and Employment

#### 1. History

The history of Northwestern Ontario reveals ever changing and increasing ways in which man has made use of the natural endowments of the Region.

##### a) The First Inhabitants

Archaeological evidence indicates that peoples first inhabited this part of Ontario some 9,000 years ago, following the northward retreat of the last continental glacier. These first inhabitants struggled to survive by hunting, fishing and gathering. The food resources in particular, however, were sparse, shifting and unsure. Thus the inhabitants were scattered into small bands covering large areas, forced to move at least seasonally and constrained severely in their total numbers.

Cultural and technological adaptations, often in response to changing climatic conditions, as well as periodic intrusions of and interactions with peoples from the west and south, occurred over the millenia that followed. Finally, during some unknown time prior to the arrival of Europeans, the many small independent bands because of cultural and linguistic

similarities became known as the Algonkian Indian people whose domain extended over most of mid-Canada. With the advent of the European fur trade in the late 17th century, there began major changes in the territory, culture and economy of these Indian people. The variety of new goods offered by the Europeans enticed them to become increasingly active in the trapping and trade of furs. The Ojibwa, or Saulteaux as they were first known in the vicinity of Sault Ste. Marie, allied and advanced with the French fur trade westward and northward to occupy most of Northwestern Ontario by the late 18th century.

The Cree, indigenous to most of the Region, intermingled with the Ojibwa, but generally, migrated toward the Lowlands of Hudson and James Bay, where they themselves became middlemen in the English fur trade.

#### 1. The Fur Trade Era

Strategic interests, religious missions, the wealth of furs and the promise of lucrative profits attracted the first European interests to the interior of Canada. During the late 17th century, the Hudson's Bay Company established posts along the coast of Hudson and James Bay. About the same time, competing French interests extended themselves westward from Montreal to Lake Superior. From Lake Superior, canoe routes extended

via the Kaministiquia and Pigeon Rivers westward to Rainy Lake and Lake of the Woods. At strategic locations along the water transportation system posts were established. Thunder Bay, Fort Frances and Kenora are all communities located on or near the site of former fur trading posts.

With the defeat of New France, English and Scottish merchants inherited the French fur trade empire. For nearly half a century a group of these merchants, known as the North West Company dominated the fur trade. However, after an intensive rivalry, the North West Company eventually merged with the Hudson's Bay Company in 1821.

The fur trade remained Northwestern Ontario's basic commercial activity until after the 1850's, when 19th century economic development and settlement began to advance into the Region from Eastern Canada. In the still Indian dominated territory to the north, however, the Hudson's Bay Company fur trade persisted almost unchanged until the mid 20th century.

#### c) Development and Settlement

As the fur trade era waned, new sources of wealth were found in the mining, forestry and agricultural resources of the Region.

Mining offered the first opportunity for permanent development and settlement. The first efforts of the 1840's, sparked by the possibility of rich copper occurrences along the north shore of Lake Superior, however, met without success. Opening of the American Canal at Sault Ste. Marie in 1855 broke down much of the isolation and renewed interest in other possible mining developments. In the ensuing decades numerous discoveries of silver were made in the vicinity of Thunder Bay. Among them was Silver Islet, Northwestern Ontario's first major mining development.

Encouraged by the successes near Thunder Bay, prospecting activity extended westward, and a series of gold discoveries were made around Rainy Lake and Lake of the Woods in the period from 1870 to 1890. Mining activity reached its peak between 1895 and 1910, however, most mines failed to realize the profits expected of them. Consequently, investors were reluctant to commit capital to new mining ventures in the Region.

It was not until gold was discovered at Red Lake in 1925 that mining again assumed any significance. Despite the advent of aircraft, development and operating costs were prohibitively high in such remote areas. A spectacular rise in the price of gold in 1934,

however, stimulated the development of mines at Red Lake as well as Pickle Lake, Geraldton and Beardmore. In more recent decades, discovery and development of iron ore, base metals and nickel deposits, have considerably expanded the scope of mining activity in Northwestern Ontario. More recently, there has been a resurgence of gold exploration with the rise in world prices for this precious metal.

The first real interest in the forest resources of Northwestern Ontario developed in the 1870's. Although a few sawmills were established in the Thunder Bay area to meet the local construction needs of mines and railways, most interest was focused on the extensive stands of pine in the Rainy Lake and Lake of the Woods area. Opening of the Canadian West provided a ready market for wood produced in that area.

The pulp and paper industry in Northwestern Ontario started after 1910 and increased in importance during the 1920's. It was fostered by the strong demand and rising price of newsprint in the United States. The first pulp and paper mills were established at Thunder Bay, Dryden, Fort Frances and Kenora, all of which had abundant nearby wood supplies, water for transportation of the wood from bush to mill, and sources of hydro electricity. After World War II additional mills were

established in Marathon, Terrace Bay and Red Rock. Though the forest industry remains unquestionably dominated by pulp and paper production, in recent years sawmill production has strengthened and new lines of production, veneer, plywood and waferboard, have been introduced.

Historically, agriculture has also been important in the Region's development. Initially, however, while the Canadian West was being opened up, the Region's agricultural potential was largely overlooked. Not until the 1890's did the Government begin a concerted effort to attract homesteaders to the most promising areas, Rainy River and Thunder Bay. By 1920 most of the suitable land was taken up. Climate and soils, though not the best, were amenable to grain and forage crops and livestock. Few farms, however, were self-supporting. Many farmers sought winter employment cutting wood for the burgeoning forest industry. The marginal existence caused many to give up farming and abandon the land eventually in the post war period. Despite the loss of approximately half the farmsteads, remaining farms have consolidated and modernized and have succeeded in actually increasing total commercial farm production.



As a consequence of mining, forestry and agricultural development during the first half of the 20th century, Northwestern Ontario experienced a massive influx of people and dramatic growth in population. While many originated from Southern Ontario, the majority were immigrants settling in Canada for the first time. Between 1901 and 1951, total population of the Region grew from only 28,000 to some 167,000. The growth of population is presented in Table 1.

Table 1  
Population Change 1901-1971

	<u>Ontario</u>	Northwestern <u>Ontario</u>	<u>Rainy River</u>	Judicial Districts of <u>Kenora</u>	<u>Thunder Bay</u>
1901	2,182,947	28,156	6,568	10,369	11,219
1911	2,527,292	69,432	10,429	19,507	39,496
1921	2,933,662	82,217	13,518	19,139	49,560
1931	3,431,683	108,396	17,359	25,919	65,118
1941	3,787,655	137,704	19,132	33,372	85,200
1951	4,597,542	166,711	22,132	39,212	105,367
1961	6,236,092	216,523	26,531	51,474	138,518
1971	7,703,106	224,370	25,750	53,230	145,390

Source: Census of Canada (Statistics Canada)

## c) Land Tenure Pattern

The present pattern of land tenure is shown in a generalized manner in Map 10. Only some five percent of the total area of Northwestern Ontario is private land. This is found almost entirely in the southern part of the Region and predominates around Thunder Bay, Fort Frances-Rainy River, and Dryden. In areas outside other centres of population and along major transportation routes there is only a limited amount of private land.

In the beginning, the Indians by virtue of their traditional occupancy possessed a right to all of the land. Through a series of treaties, the first in 1850 and the last in 1929, the Indians ceded the land to the Crown in return for annuities, reservations of land for their own exclusive use and certain other rights. This opened the way for mining, lumbering and homesteading of the land.

The first significant alienations or dispositions of Crown Land were the many mining patents taken out around Lake Superior and later in the area of Lake of the Woods and Rainy Lake. With regard to timber lands, it was the Government's policy from the start to only lease cutting rights to such areas. Thus, despite the extensive coverage of timber operations, the land

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LAND TENURE









remains in Crown ownership. It was homesteading that alienated the largest proportion of Crown Land. As part of the Government's policy to encourage settlement, bona fide settlers were offered free grants of land. The only other significant areas of private land are the eight Abitibi Blocks, formerly granted to the Grand Trunk Pacific Railway in 1904 as part of its contract to construct the railroad between Fort William and Sioux Lookout.

## 2. Population

Northwestern Ontario is the least populated of the planning regions, and yet, it encompasses a major share of the land and water resources of the Province. In 1971, the Region had a total population of about 225,000.

### a) *Distribution*

The population is very unevenly distributed geographically. More than 90 percent of the population is found south of the C.N.R. mainline. A large proportion is concentrated in Thunder Bay, and to a much lesser degree in Kenora, Fort Frances, Dryden and Atikokan. More than three quarters of the total population of the Region is concentrated in these and other "urban" centres of one thousand or more persons.







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NORTHWESTERN ONTARIO  
PLANNING REGION  
COMMUNITIES



Most of the remaining "rural" population are in small communities around the major urban centres or along the main transportation lines. (Map 11 and 12)

In the vast area north of the C.N.R. mainline, there are approximately 15,000 people, mostly Indians. Many live in relative isolation on widely spaced and generally small settlements, usually situated on large inland lakes. (Table 2)

Table 2

Indian Communities  
Northwestern Region — 1973

Community	Approximate Population	Community	Approximate Population
Allanwater Bridge	150	MacDowel Lake	50
Angling Lake	130	Maitland	120
Aroland	280	Muskat Dam Lake	60
Auden	150	Naicatchewenin	150
Bearskin Lake	250	Ninickousemenaning	80
Big Grassy	250	North Spirit Lake	140
Big Island	180	Northwest Angle #33	170
Big Trout Lake	530	Northwest Angle #37	100
Cat Lake	210	Osnaburgh	530
Collins	150	Pic-Heron Bay	320
Couchiching	610	Pic-Mobert	310
Deer Lake	240	Pikangikum	520
Eagle Lake	140	Poplar Hill	220
Ferland	100	Rainy River	410
Fort Hope	600	Rat Portage #38	440
Fort William	450	Sabaskong	250
Grassy Narrows	410	Sackville	170
Gull Bay	280	Sandy Lake	920
Islington	600	Seine River	250
Kasabianika	270	Shoal Lake #39	200
Kingfisher Lake	170	Shoal Lake #40	230
Lac la Croix	180	Slate Falls	60
Lac Seul	530	Wabigoon	70
Lake Helen	120	Weagamow (Round Lake)	400
Lansdowne House	350	Webequie	340
Long Lac #58	440	Whitefish Bay	460
Long Lac #77	80	Wunimmin Lake	220

Note: The first three items listed are communities with a population greater than 40 and by which Indians comprised more than 90 percent of the population.

Source: Bureau of Statistics and Information, Northern Development Centre, Ministry of Natural Resources, 1973.

In summary, approximately 86 percent of the Region's population live in organized municipalities, and six percent on Indian reserves. The remaining eight percent, or 17,000 people, live in unorganized areas, and lack benefits of local governments, the capacity to finance basic services, and the means to plan orderly development.

b) Population Characteristics

Different lifestyles are apparent within the population. Perhaps the most significant distinction is that between native Indians and other Canadians. However within the Indian population, a legalistic division created by the Indian Act, is also quite significant.

"Registered" Indians, as defined by the Act, are entitled to special rights and benefits as a consequence of early treaties, while Non-Status Indians and Metis are denied these, despite their full or partial Indian ancestry.

At present, approximately one in five residents of Northwestern Ontario is of full or part Indian origin. About half are "Registered" Indians, the rest being Non-Status Indians or Metis.

c) Population Trends & Problems

Current trends indicate that the Indian population will increase relative to total Regional population. With the introduction of modern health care and government assistance, death rates among the Indians have declined considerably, while birth rates have remained high. The result has been a large increase in the number of Indians in the Region.

There has been an increase in the amount of out-migration by the young in the non-Indian population. This increase is explained partly by the lack of choice of employment opportunities within the Region.

The result of these various trends is the fact that while the "Registered" Indian population has grown 18.7 percent in the period 1966-71, the general population has grown by only 0.4 percent.

This trend will only aggravate the economically disadvantaged situation in which the Indian population finds itself at present. This group generally has subsisted on activities such as hunting, fishing and somewhat more profit-oriented activities, such as commercial trapping, fishing and wild rice harvesting. All of the above activities do not have the income potential to support the growing Indian population.

The Federal Government estimates that these activities can only reasonably support ten percent of the present Indian population of Northwestern Ontario.

Alternative and additional wage employment is thus necessary, but for the most part, is lacking. Given the absence of suitable employment opportunities, welfare has been accepted by many Indians as a major source of income. If welfare is not to become a permanent way of life then jobs suited to the remote locations, skills and lifestyles of Indians are necessary.

Except for the above mentioned increase in the Indian population, the Northwestern Region generally has experienced a considerable slowing in its rate of growth and has fallen increasingly further behind the Provincial average. Where in the 1951-55 period population grew by 17.6 and 17.3 percent respectively, recent population growth in the Region has been only 0.4 percent compared to 10.7 percent throughout the Province.

Although growth within the Region has continued in some areas, population has actually declined in others. If the 1966-71 period is an indication of future population changes in Northwestern Ontario, it suggests that numbers will fluctuate from place to place and from time to time because of changing conditions in

the mining and forest industries which are the mainstays of most centres. The major centres, Thunder Bay especially, being more diversified in their economic base and thus less susceptible to adverse developments in any one industry, will experience a more steady growth of population. In general, people within the Region and from outside the Region will tend to be attracted by jobs and amenities towards these major centres, and again, Thunder Bay in particular.

Indeed, Thunder Bay's significance in the Region cannot be underestimated. Only Thunder Bay, with a population of about 110,000 is large enough to be self-sufficient in terms of most consumer goods and services. People east as far as Manitouwadge and west as far as Atikokan and Ignace go to Thunder Bay for the many goods and services not available locally. People further west tend to go to Winnipeg. This pattern of consumerism is significant to the economy of Northwestern Ontario in as much as money is being spent directly outside of the Region, lessening the multiplier effects of local employment and earnings.

In *Design for Development Northwestern Ontario Region*, the Government of Ontario considers a moderate growth in population as the most desirable and reasonable



future for Northwestern Ontario. This means a growth rate of 1.0 to 2.0 percent annually, or an approximate increase of 50 percent by the year 2001. Population projections for the major communities to the year 2001 are given in Table 3.

Table 3  
POPULATION PROJECTIONS  
1971 to 2001  
Northwestern Ontario Region

Area	1971	2001
Timiskaming (Incorporated)	115,000	181,000
Kenosia-Kemwater-Jaffray-Mission	10,200	24,800
Fort Frances	9,000	14,800
Devlin	8,900	10,200
Atkinson	6,500	9,700
Geraldton-Longlac	4,700	5,900
Nipigon-Rice-Rock	4,500	6,000
Red Lake-Balmucier	4,000	5,000
Schreiber-Terrace Bay	3,500	4,800
Margisonville	3,500	4,100
Snow Lake	2,500	4,000
Marathon	2,500	3,000
TOTAL PLANNING REGION	224,100	333,000

Source: Ontario Population Projections, (Ministry of Treasury, Economics & Intergovernmental Affairs, 1971).

### 3. Employment

There were approximately 82,000 people employed in Northwestern Ontario in 1971.<sup>1</sup> The forest, mining and tourist industries dominate the resource related sector of the economy, employing over 30 percent of the labour force. The transportation and storage industries (particularly grain) are also an important element, reflecting the corridor role of the Region in Canada's east-west trade.

The forest industry, including both woods and mill operations, employed more than 14,000 people in 1971 and this represented over 15 percent of the Regional labour force.

The mining industry employed approximately 3,750 people directly in mineral extraction and primary processing as well as in exploration activity. This latter activity is particularly centred at Thunder Bay.

Approximately 8,200 people were employed directly or indirectly in the tourist industry. This number is tempered, however, by the seasonality of many of the jobs.

Among the non-resource based activities the most important employers are the service industries (25 percent), wholesale and retail trade (14 percent) and transportation and communications (10 percent).

Census of Canada, (Statistics Canada, 1971).

Traditional employment problems have been the limited job choice for young people entering the work force, and the lack of job opportunities for women, and the seasonality of employment in some industries. Currently a new problem seems to be a shortage of workers in the forestry and mining industries, particularly in those locations away from the larger urban centres.

Design for Development set as a major objective, the creation of 18,000 to 24,500 new jobs in the Region by 1991. These new job objectives by industry are as follows:

Mining	2,000 to 3,000 jobs
Forestry	4,000 to 5,000 jobs
Manufacturing	4,000 to 6,500 jobs
Services (including Tourism)	8,000 to 10,000 jobs
<hr/>	
Total	18,000 to 24,500 jobs

Current trends in the forest and mining industries are well ahead of these objectives. To date, the newly created and proposed jobs total a net increase of 3,900 in forestry and 2,000 in mining.

The employment targets in Design for Development for each of the growth areas are as follows:

10,000 new jobs in	Thunder Bay
1,500 new jobs in each of	Kenora, Fort Frances, Dryden, Geraldton
250 new jobs in each of	Atikokan, Ignace, Manitouwadge, Marathon, Nipigon, Rainy River, Red Lake, Sioux Lookout, Terrace Bay

In summary, the employment situation is currently bright in Northwestern Ontario. World market conditions are spurring both the forest and mining industries, and transportation is doing well based on the former as well as the shipment of other products such as grain.

During 1973, unemployment ranged from a high of 8.6 percent in June to a low of 4.6 percent in September.<sup>1</sup> The median for the last six months of the year was between 5.2 and 5.3 percent. Currently many jobs, particularly in mining and forestry, are going unfilled.



MINISTRY OF NATURAL RESOURCES  
NORTHWESTERN ONTARIO  
PLANNING REGION  
GENERALIZED AGRICULTURE  
CAPABILITY



## IV Natural Resource Evaluation

The potential for resource production in Northwestern Ontario is significant. While the Region has only a few scattered areas of very high potential for certain uses, there are extensive areas of moderate potential for a variety of uses. The main limitations for biological production are the shallowness and low fertility of the soils, the unfavourable moisture conditions and the shortness of the growing season.

### 1. Agriculture

Only a small portion of the region has been surveyed under the Canada Land Inventory program. These areas coincide with the lands currently under agricultural production. (Map 13)

There are five areas of high capability agricultural land (Class 1, 2 or 3). These areas are the Kaministiquia Valley and the Dorian area near Thunder Bay; the clay plain west of Fort Frances; the Dryden clay plain; and the small clay plain north of Kenora.

There are a few additional areas of moderate capability (Class 4 and 5), which are generally associated with the lacustrine deposits.

Nearly all the high capability agricultural land is currently being cultivated. A few small areas of high capability are not in production largely because of their small size

and isolated locations. Any expansion of agricultural production in the Region will likely come from more intensive use of existing areas rather than from clearing additional lands.

## 2. Forests

Map 14 shows the generalized forest capability ratings for the Region. This is based on an analysis of climate, soil material and depth and moisture conditions. A striking feature is the large proportion (about 50 percent) of high and moderate capability land south of the 52nd parallel.

Several of the high capability areas coincide with the best agricultural lands. In addition to these there are extensive areas of high capability: an area north of Marathon; a broad band north and west from Geraldton to Lake Nipigon and thence southward along the west shore of the lake and the Black Sturgeon River; a large zone surrounding the English River-Ignace area; and, two arms trending northwestward from a line joining Dryden and Sioux Lookout.

There are also extensive areas of moderate capability west of Thunder Bay, north of Fort Frances, north of Ignace to Sioux Lookout, and a wide band from north of Trout Lake to east of Pickle Lake following Lac Seul, Lake St. Joseph and the Albany River.









Map Number 15

The remainder of the Region has low capability with the exception of a broad area of very low capability along the northern boundary.

### 3. Metalliferous Minerals

The generalized mineral potential is shown on Map 15. This rating is based on a study of rock types and assemblages present, geological structure, the results of geological, geophysical and geochemical surveys, the presence of mineralization and comparison with the geology of known mining camps.

The map shows that approximately 20 percent of the Region has high mineral potential. The location of these areas reflects the major east trending bands of Archean volcanics and sediments, the carbonate-alkalic complexes, and the more favourable Proterozoic rocks. (Map 3)

A number of small areas of moderate mineral potential are located near Thunder Bay, on the west side of Lake Nipigon and a few small pockets in the north. The remaining 75 percent of the Region has generally low mineral potential, although significant deposits of iron ore occur, and there are also good prospects for uranium, lithium and molybdenum in certain locations.

#### 4. Recreation

An overall analysis of recreation capability was done in two ways. First, the capability for intensive recreation use was summarized by studying the Canada Land Inventory. Second, the capability for extensive or dispersed recreation activities was determined by relating factors of water patterns and topography.

##### a) Intensive Recreation Use

Map 16 shows the areas that have outstanding or high capability for attracting intensive recreation use. Only two areas exhibit very high capability. These are Thunder Bay and vicinity including the Nor-Westerns, and the Sibley peninsula. In both places there are a variety of features and all-season recreation potential. Skiing potential is of particular importance at Thunder Bay.

The remainder of the areas shown as high capability are mostly of interest because of their shoreline potential for recreation use for either lodging, cottaging or bathing.

##### b) Extensive Recreation Use

The capability for extensive recreation as shown on Map 17, includes broad considerations for such uses as

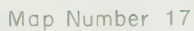








EXTENSIVE RECREATION  
USE CAPABILITY



canoeing, walking and dispersed cottaging. Areas of high capability have both an interesting topographic setting and a varied water pattern. Areas of lesser rank have a deficiency of either water or topography.

In general, the highest capability in the Region for extensive recreation is the south where a combination of extensive and varied water pattern and interesting topography exist together. Towards the north the capability becomes lower as the topography becomes less interesting, however, the smaller lakes and river patterns offer a type of recreation not found elsewhere in the Region.

## 5. Fish and Wildlife

Although no comprehensive surveys of fish and wildlife capability have been done in Northwestern Ontario, it may be inferred that it is generally moderate as compared with more productive parts of Ontario.

### a) Moose

Map 18 shows the generalized moose production capability for the Region. It indicates that the highest capability areas for moose production are, the Fort Frances-Kenora-Dryden-Red Lake area; the Thunder Bay-Marathon-Manitouwadge area. The remainder of the area

south of the 52nd parallel is rated moderate while north of that line it is low.

The distribution of moose is shown on Map 19. The areas of highest density (greater than .8 moose per square mile) are: the area between Thunder Bay and English River north of Highway 17 to the C.N.R. main-line; a broad band from Minaki northeasterly to Lake St. Joseph; a large pocket centred on the Manitou lakes; and a small pocket south of Sioux Lookout. The remainder of the area south of the 51st parallel has medium density (.2 to .8 moose per square mile), except for a few isolated pockets of low density (less than .2 moose per square mile). North of the 51st parallel the density is low and gradually diminishes toward the tree line in the North.

b) Deer and Caribou

The distribution of deer is shown on Map 20. The highest density (greater than 15 deer per square mile) is in the farming area west of Fort Frances. Medium densities (5 to 15 deer per square mile) occur around Dryden, Kenora, Flanders, and Thunder Bay. In the remainder of the Region deer are almost non-existent.

The main concentration of Caribou is in the northern part of the Region in the Hudson Bay Lowlands. (Map 20)

## MOOSE PRODUCTION CAPABILITY







Source — Ministry of Natural Resources, 1974.

Map Number 19













Source — N.V. Martin, "Distribution of Lake Trout Lakes In the Province of Ontario." Ministry of Natural Resources, 1974.

Map Number 21

Small scattered herds occur in the following: The Irregular Lake area; north and east of Lake Nipigon; the Pukaskwa area; and a small population on the Slate Islands.

c) Fish

The sensitive fisheries of the Region are the Lake Trout lakes and the Rainbow Trout streams of Lake Superior. Map 21 shows that Atikokan District, with 135, has the largest number of Lake Trout lakes, followed by Kenora and Thunder Bay with 99 and 76 respectively.<sup>1</sup>

The known number of Lake Trout lakes in the Region is approximately 650, but it is estimated that there are 150 more which have not been positively identified. This total of 800 lakes represents 38 percent of the estimated Provincial total, which in turn is an important proportion of the world supply of lake trout waters.

The critical waters for Yellow Pickerel, the most important sports species in the Region, are Lake of the Woods, Rainy Lake, Whitefish Lake and Lac des Mille Lacs.

<sup>1</sup> N. V. Martin, Distribution of Lake Trout Lakes in the Province of Ontario, (Ministry of Natural Resources, 1974).



## V. Natural Resource Development and Use

The development and use of the natural resources of Northwestern Ontario will be discussed under the heading of each significant economic or social activity. These include Agriculture; Commercial Fish, Fur and Wild Rice; Forestry; Mining; Recreation and Tourism; and Water use. A summary of the total impact of all these activities on the Region is contained in the final section on Degree of Development.

### 1. Agriculture

Although the number of people involved is not large, and value of production is not significant in relation to forestry and mining, agriculture is an important aspect of the social, economic and the food supply system of the Region.

#### a) Number of Farms, Size and Products

In the 1971 census, a census-farm was defined as a farm, ranch or other agricultural holding of one acre or more with annual sales of agricultural products of \$50.00 or more. On this basis there are 1,050 census-farms in the Planning Region. There are 135 census-farms in the Kenora-Dryden area; 496 in Rainy River and 419 in Thunder Bay. All areas show a drop in the number of census-farms from the 1966 Census.

Of the 1971 total, there were 537 farms in the Region that sold over 2,500 dollars worth of agricultural products; 238 farms that sold over 10,000 dollars worth of agricultural products and only 159 farms that sold over 15,000 dollars worth.

The majority of farms are between 130 and 759 acres in size. The largest percentage (28 percent) in all the census divisions are between 240 and 399 acres in size.

The total area of the 1,050 census-farms was 343,200 acres, 40 percent of which was classed as improved land.

The 537 farms with sales of 2,500 dollars or more were further classified as one of ten major product types.

Dairy farming predominates (64 percent) in the Thunder Bay District, while livestock farming predominates (64 percent) in the Rainy River District. There was almost an even split between these two types of farming in the Kenora District.

A total of 28,136 cords of pulpwood was harvested from 265 census-farms. The average per farm was about 100 cords except for the Kenora-Dryden area where the average was 175 cords per farm.



b) Farm Employment

The farm population of 5,127 people accounted for approximately .2 percent of the total population in the Region in 1971. Of the 1,050 census-farm operators, 68 percent were between 35 and 59 years of age. Almost all operators (95 percent) resided year round on the farms they operated.

Of the 1,050 census-farm operators, 604 reported they spent time working at occupations other than that of running their farms. Over 37 percent of these 604 operators worked between 229 and 365 days at off-farm occupations. The main off-farm jobs are truck or bus driving and forestry. Only 42 farms employ year-round agricultural workers, and they employ 64 people.

c) Importance to the Region

Agriculture is marginal in many areas because of climatic limitations, distance from major markets, the small local market, and competitive disadvantages compared with other regions. The raising of dairy and feed cattle is the most important form of agriculture. While agriculture employs less than 2 percent of the Regional labour force and does not have a major impact on the Regional economy, it does produce other benefits.

Farming adds to the variety of employment opportunities in the Region. Stretches of farm land add a welcome diversity to the northern landscape. This is readily appreciated by people living in the settled areas around which this land is situated. Marginal farms are now being purchased by residents and non-residents for rural residences, recreational retreats, and as a form of investment.

In Kenora agriculture is of little importance in the immediate area except for four large dairy farms that supply one of the local dairies.

Around Dryden beef farming is the largest agricultural enterprise. The dairy operations supply the local fluid milk requirements except for the peak summer period. The agricultural industry probably follows the pulp and paper, tourism, and mining industries in importance in the Dryden area. Many farmers who maintain part-time operations (especially beef farmers) work off the farm in the pulp and paper industry.

In the Fort Frances-Rainy River area the situation is similar to Dryden in that beef farming is by far the largest agricultural enterprise and dairy operators are generally able to supply the local market with fluid milk. The importance of the agricultural industry

to the Fort Frances-Rainy River economy is second or third following the pulp and paper industry, and compares with tourism.

In the area around Thunder Bay agricultural employment has declined in relative importance in comparison with the urban industrial and service sectors in recent years. It is important to note however, that local farms provide all the fluid milk, 70 percent of the potatoes and 50 to 60 percent of the eggs required by the residents of Thunder Bay. Significant amounts of beef, pork and market garden produce are also produced in the area.

d) The Future

Agriculture has a limited potential for growth. Employment in the industry will probably continue to decline, although production could show a modest increase under a continuing program of farm enlargement, mechanization, modernization of farming practices, and Government assistance.

Generally, most quality agricultural land is in production, and efforts must be made to increase agricultural production from existing acreage.

## 2. Commercial Fish, Fur and Wild Rice

### a) Commercial Fishing

There are 200 commercially fished lakes in Northwestern Ontario under approximately 300 commercial fishing licences. Approximately 70 percent of the licences are fished actively. Some of the key lakes are Lake Superior, Lake of the Woods, Lake Nipigon, Rainy Lake, North Caribou Lake, Wunnummin Lake, Lake St. Joseph and Lac Seul.

In 1972 it was estimated that there were 20,000 person days of direct employment in this industry and an additional 5000 person days of indirect employment in the

The value of the annual production in the Region is estimated at 2.1 million dollars based on a harvest of 6.5 million pounds of fish. This annual harvest is well below the estimated 18 million pounds of sustainable potential harvest. The principal species harvested are yellow pickerel, whitefish, northern pike and herring.

Approximately 10 percent of the fishermen earn more than 10,000 dollars annually, and another 20 percent earn between 5,000 dollars and 10,000 dollars. Probably fewer than 25 people earn a full-time living from commercial fishing. The remainder work at a number of other occupations including farming, fur trapping and forestry.

The problems facing the commercial fishing industry are many, and a few of the more important are as follows:

- i) younger people are not entering the industry;
- ii) rising costs of production coupled with fluctuating market prices;
- iii) problems of marketing mercury contaminated fish;
- iv) real or imagined conflict with sports fishing in some areas; and
- v) the fact that 30 percent of all licences are not fished actively.

Although there is a significant unharvested potential and hence an opportunity to expand this industry, particularly with respect to coarse fish, it is doubtful if this potential can be totally realized because of the problems cited above. The only factor on the horizon which could alter this situation is the predicted world shortage of protein in the next few decades. If this occurs it could change the economic factors affecting this industry considerably.

#### b) Bait Fishing

Although it is just a specialized form of commercial fishing, bait fishing is discussed in a separate section because of its different character and growing importance in the Region.

The bait fish industry has developed in Northwestern Ontario during the past 20 years, due largely to the growing popularity of sports fishing. The majority of bait fish lakes are small and unnamed and do not produce game fish species. As a result, conflict between bait fishermen and other fish users is almost non-existent.

There are approximately 320 bait fishermen and 200 retail dealers in the Region. In 1972 employment in both the primary and secondary sectors of the industry was estimated at 26,000 person days. The gross value of the primary sector to the Region was estimated at 600,000 dollars in 1972.

The future looks good for the bait fish industry. If current trends in sports fishing continue, it is expected that bait fishing will increase proportionately. It is estimated that there is currently enough unharvested potential in the northern parts of the Region to permit a 100 per cent increase.

#### c. Commercial Fur Trapping

There are approximately 1,300 registered trap lines in the Region. Approximately half of these are held by treaty Indians.







It is estimated that 1000 trappers are currently involved in this industry. Because trapping is a seasonal activity, it probably supports 75,000 to 100,000 person days of employment annually. Only 30 percent of trappers earn more than 1,000 dollars annually from this occupation, and over 50 percent earn less than 500 dollars. (Map 22)

Beaver is the most important species harvested, followed by muskrat, marten and mink. Generally, trappers are currently harvesting well below the annual production.

The main problems affecting fur trapping currently are:

- i) fluctuating prices;
- ii) alternative types of employment are more reliable, better paying and less demanding; and
- iii) lack of motivation by trappers in some areas to fully utilize the annual allowable harvest.

It may be possible to increase employment and fur production in the future by reducing the size of trap lines, increasing the number of trappers and stimulating accelerated trapping activities on under harvested populations.

d) Wild Rice

Wild Rice, Canada's only indigenous cereal, has been associated with native tradition and dates from the beginning of our recorded history. Today it also enjoys a high

market demand on the gourmet food market, providing significant yet short term employment for the Indian people. In Northwestern Ontario the largest concentrations are in the Lake of the Woods and Fort Frances areas. (Map 23)

Based on the assumption that the former Kenora Administrative District accounted for some 75 percent of the normal Ontario harvest of wild rice, it is estimated that 400 - 1000 people, mostly Indian, are employed at the primary level (i.e. picking) for a period of two to three weeks. The number varies with the quality and quantity of the harvest.

The annual production in the Region varies considerably from a poor year such as 1970 with approximately 60,000 pounds, to a good year like 1972 with 1.2 million pounds. The value of the 1972 crop on the retail market was 2.1 million dollars.

It is worth noting that only about 25 percent of the potential harvestable crop is picked each year. Current research is aimed at developing new varieties of rice with non-shattering heads which may increase the potential harvest by 10 times.





Constraints to current production and harvest include the following:

- i) water level fluctuations, particularly on water bodies controlled for hydro power generation;
- ii) competition from other plants such as water lily and cattail;
- iii) insects and disease; and
- iv) current Ministry policy which limits picking rights to registered Indians in the Kenora area curtails incentive to increase harvest particularly through new technology such as mechanical harvesters.

The future for wild rice production seems good if some of the above-noted problems are resolved. There is a growing market for the processed product, and significant potential exists for expansion. Some paddy culture is being tried near Fort Frances, and some small shallow lakes have been successfully seeded and harvested in the Red Lake area.

### 3. Forestry

The Region contains about 45 percent of the total productive forest land in Ontario, and about 40 percent of the Province's merchantable timber. This timber is made available for harvesting through a system of licencing, and in this Region, almost all of the land below the 51st degree of latitude is licenced in one form or another. Licences are both long and

short term, and are granted to both large companies and individual operators, but in all cases convey only a right to cut timber. There are no rights conveyed regarding the land. All operations are regulated through the issuance of yearly cutting approvals in accordance with management plans.

a) Present Situation

Up to and including the 1971 calendar year, the development of the forest resources of Northwestern Ontario had been proceeding without dramatic fluctuations in the number and variety of products produced or in the composition and size of the labour force. The number of producing mills (pulp and paper, sawmills and veneer) in the Region had not changed dramatically over the previous 10 years, and although the demand for standing timber remained strong, significant expansions did not take place.

Primary products include newsprint and allied paper products, lumber, railway ties, and veneer. The existing situation in the Region as of 1971 in terms of local and primary wood using industries and employment is best represented in Table 4.

In 1971, the total cut of all species of wood from Crown lands in the Region was about 2.5 million cunits (1 cunit = 100 cu. ft.). This was in relation to an



MINISTRY OF NATURAL RESOURCES  
NORTHWESTERN ONTARIO  
PLANNING REGION

WOOD FLOW & MILL LOCATIONS





Table 4

Employment in the Forest Industry in 1971

Locality	No. of Jobs directly assoc. with all forest industries	No. of Producing Mills		
		Pulp & Paper	Sawmills	Veneer & Other
Kenora-Keewatin	1,500	1	5	2
Red Lake	100		1	
Fort Frances	1,000	1	17	
Rainy River	30		9	
Dryden	1,800	1	10	
Sioux Lookout	125		1	
Ignace	25			
Atikokan	60		6	
Thunder Bay	6,600	4	5	
Nipigon-Red Rock	1,200	1	1	1
Geraldton-Longlac	675		1	2
Schreiber-Terrace Bay	550	1	2	
Marathon	1,000	1	1	
Manitouowadge	120		1	
	14,795	10	60*	5

\* In addition, it must be recognized that there are a large number of portable sawmills operating throughout the Region. The majority of these operate close to urban agricultural areas and rely to a great extent on wood purchased from private land. It is estimated that between 40 and 60 of these mills are in operation, the majority in the Thunder Bay and Fort Frances and Dryden areas. (Map 24).

existing allowable cut of 7.3 million cunits<sup>1</sup> (all species) indicating in total an under-utilization of the existing resource. With an actual cut of 2.5 million cunits, it can be estimated that such a volume contributes initially some 250 million dollars to the Provincial economy (1 cunit of wood = 100 dollars).<sup>2</sup> In addition, considering a job multiplier of 2 it can be estimated that the industry provides an additional 30,000 secondary jobs as a direct result of the industry.

b) Trends

During the past 18 months, the pattern of forest resource development in the Region has changed dramatically. The predictions for industry expansion indicate that almost the full allowable cut (all species) of the Region will be required within the next 5 to 10 years.

Between 1971 and March 1974, a number of industry expansions have been announced (some having already taken place) within the Region. (Table 5)

The announced industry expansions in the Region will, in addition to providing some 3,910 new jobs, require an actual harvest of some 5.5 million cunits. The

<sup>1</sup> This figure is made up of 6.9 million cunits on Crown land and .4 million cunits on private land.

Iedlin-Menzies, Report on the Ontario Forest Industry, (Department of Lands and Forests, 1969).

Table 5

Announced Expansion in the Forest Industry  
to March, 1974

Locality	Industry Expansion	Number of Jobs To be Created
Fort Frances	Ontario-Minnesota — new kraft mill completed (1971)	300
Dryden and Red Lake	Colenso Lumber — expansion of existing plant (1974)	50
	Anglo-Canadian Pulp and Paper Mills — new sawmills at Dryden & Red Lake (1975) — expansion of existing kraft mill at Dryden (1976) — expansion of sawmills (1977) — new kraft pulp mill at Red Lake (1978)	1,800
Thunder Bay	Great Lakes Paper — new stud mill (1974) — new particle board — waferboard mill (1975) — new tie mill (1974) — expansion of kraft mill (1976)	1,200
	Laidlaw Corporation — new waferboard mill (1974)	200
Terrace Bay	Kimberly-Clark — new stud mill, dry kiln and planer (1974)	120
Geraldton	— new woodworking plant (1974)	30
Longlac	Weldwood of Canada Ltd. — new waferboard plant (1974)	180
Nipigon	Multiply Corporation — expansion of existing plant	30
		3,910

calculated allowable cut is 7.3 million cunits and the wood required for the next 60 years is now growing. It is expected that the full allowable cut will be required by 1980. If this level of operating is to be sustained beyond the 60 years the output target<sup>1</sup> for the Region must be raised to at least keep pace with the utilization level. However, if the level of regeneration remains below the utilization level, then production levels will ultimately be reduced.

The main areas which are expected to be cut between 1971 and 1991 are generalized on Map 25.

·) The Future

As indicated before, the existing potential for timber production during the next 60 years within the Region is represented by the allowable cut of 7.3 million cunits. Industry expansion towards full utilization of this potential will depend mainly on three factors: market demand; availability of capital; and availability of labour.

At the present time, there is every indication that the demand for wood products will continue to be strong and increasing. If the demand continues there is every reason to expect that expansion should continue, the

<sup>1</sup> An output target represents a financial commitment to supply money for regeneration in order that a specific amount of wood can be harvested in perpetuity. The currently approved output target for Northwestern Ontario is 3.5 million cunits. (Division of Forests Production Policy, 1972).

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PLANNING REGION

FUTURE TIMBER CUTTING AREAS





rate governed primarily by the availability of capital, labour and equipment. Currently there is a shortage of skilled labour to work in the bush operations. Initially, it would appear that all of these may have to be imported from outside of Northwestern Ontario, if not from outside Ontario.

#### 4. Mining

Mining is one of the mainstays of the economy of Northwestern Ontario. It is second only to forestry in the provision of industrial employment.

In 1973 there were 15 producing mines in the Region employing approximately 3,800 people. (Table 6) The distribution of these mines is shown on Map 26. The production value of the producing mines was estimated at 211.8 million dollars in 1972.<sup>1</sup> This figure represents an increase of more than 315 percent since 1958.

##### a) Gold Mining Operations

The value of gold and associated silver produced by the operating gold mines in Northwestern Ontario, equaled 19 million dollars, or approximately 27 percent of the total 1972 Ontario production of these minerals. Four mines are located in the Red Lake area and during 1973 employed 625 people.

The price of gold has risen from about 36 dollars an ounce in 1971 to as high as 175 dollars an ounce in early 1974. The considerably higher price of gold has improved the prospects of most operating gold mines and has produced a moderate increase in gold exploration activity, particularly in the Red Lake and Kenora areas.

<sup>1</sup> Ontario Mineral Review 1972, (Ministry of Natural Resources,







Table 6

PRODUCING MINES IN 1973

Company	Location	Products	Employees
Algoma Development Corp.	Beardmore	Gold	2
Caland Ore Co.	Atikokan	Iron	410
Campbell Red Lake Mines	Balmertown	Gold, Silver	290
Chikoma Mines	Atikokan	Gold, Silver	116
Griffith Mine	Bruce Lake	Iron	535
International Nickel Co.	Shebandowan	Nickel, Copper	325
Madsen Red Lake Gold Mines	Madsen	Gold, Silver	105
Mayville Mines	Mayville	Iron, Silver, Gold	770
Noranda Mines (Geco Div.)	Manitouwadge	Zinc, Copper, Lead	675
Robin Red Lake Mines	Balmertown	Gold, Silver	15
Selco Mining Corp.	Confederation Lake	Zinc, Copper, Silver	150
Steep Rock Iron Mines	Atikokan	Iron	610
Thunder Bay Amethyst Mines	Thunder Bay	Amethyst Stone	4
Winnipeg Mines	Winnipeg	Silver, Lead	165
Total			3,794

Intensified exploration efforts for gold in the Red Lake, Pickle Crow, Geraldton and other former gold mining camps may result in future additional production and employment in the Region.

Full production of the operating gold mines in the Red Lake area is constrained by a labour shortage. It is estimated that between 50 and 75 additional people could be employed immediately if mine labour were available.

### 3.1 Iron Mining Operations

Output of the three iron mining operations in North-western Ontario during 1972 equaled 53 million dollars, or approximately 10 percent of the total iron ore output of Ontario. The three mines employed 1,555 persons in 1973. Within the next few years one operation (Caland Ore Company Ltd. at Atikokan) will shut down, one operation (Griffith Mine) will have expanded, and one operation may start up in the Lake St. Joseph area (Steep Rock Iron Mines Ltd.). These changes are expected to create a net increase in production and employment, however, if the Lake St. Joseph operation does not become operational, the effect will probably be a net decrease on production and employment.

c) Base Metal Mining Operations

During 1973, six base metal mines were in operation in the Region employing approximately 1,600 people. Total value in production in 1972, excluding the International Nickel Company of Canada Ltd. operation at Lake Shebandowan (not disclosed) was about 140 million dollars, or about 15 percent of Ontario total. Recent and probable developments will add substantially to production figures and employment.

d) Other Mines

The only other significant operation is the Thunder Bay Amethyst Mine located 35 miles northeast of Thunder Bay. The operation is by open pit and production consists of amethyst crystals, crystal clusters, and amethystine stone. The amethystine stone is sold both in Canada and the U.S. for building veneer, fireplaces, chimneys, and other stonework.

The 1973 production is estimated at about 50,000 dollars, and three to five persons are employed during the summer months.

e) Future Mining Operations

i) Great Lakes Nickel Ltd.

This property is located in Pardee Township, 35 miles southwest of Thunder Bay. A mine, mill and concentrator complex is proposed and the work force is expected to number 225 initially.

ii) Steep Rock Iron Mines Ltd.

Steep Rock's Lake St. Joseph property is located about 40 miles southwest of Pickle Lake, or about 60 miles north of Savant Lake. Development is contingent upon adequate financing and markets. Steep Rock officials suggest that it is possible that production may start by 1977.

The operation may employ up to 800 people with 400 in on-site open pit mining and concentrating, and 400 in a pelletizing and metallizing operation. The construction labour force might reach a peak of 2,000 people.

The Provincial Government is examining alternative townsite locations suitable to this and other mining developments in the area. A report is expected in 1974.

iii) Sturgeon Lake Mines Ltd.,

The Sturgeon Lake property is located in the Sturgeon Lake area about 50 miles northeast of Ignace and 3 miles east of the Mattabi Mine. The property is presently being developed for production by early 1975 at a rate of 1,200 tons per day. An open pit mine and concentrator will produce copper, zinc, silver and lesser quantities of lead and gold and will employ 125 to 150 people.

iv) Union Miniere Explorations & Mining Corp. Ltd.

The UMEX Thierry property is located near Ponsford Lake, about 10 miles northwest of Pickle Lake. In 1971, a mineralized zone containing copper and nickel was located on the property. UMEX will employ a labour force of about 300 people.

f) Sand and Gravel

The production of sand and gravel in the Planning Area has been slowly increasing over the past few years in conjunction with increases in construction and access resulting from higher levels of population and industrialization.

The Thunder Bay area will continue to make the greatest demands on the sand and gravel resource, however secondary and tertiary growth centres will also have need for substantial gravel reserves.

When plans are prepared for these areas, special care should be taken to ensure that provision is made for access to gravel resources. This is particularly critical in the Kenora, Fort Frances, Geraldton, Rainy River, Nipigon-Red Rock, and Terrace Bay areas where major sand-gravel deposits are not present locally or where the nature of the deposits may render them unexploitable (e.g. gravel along river valleys).

Estimated 1973 sand-gravel production in the Region totalled about 6.55 million cubic yards. Of this amount an estimated 2.6 million cubic yards were extracted from pits on private land; the remaining 3.9 million cubic yards were extracted from pits on Crown Land (including M.T.C. pits). There are an estimated 1289 pits in the Planning Region (416 on private land) but this figure, as well as the total sand-gravel production figure, is probably low because it does not take into consideration many small roadside pits located along forest access and logging roads. It is anticipated that over the long run the use of the private land gravel resource will probably increase, particularly in the more highly



populated sections of the Region where Crown supplies are not available locally, or have been exhausted.

#### e) Exploration and The Future

During 1973, there was a distinct slowdown in mineral exploration in the Region. The Red Lake area appeared to have been about as active as in 1972, but activity in the Kenora and Thunder Bay areas dropped significantly. The maintenance of activity in the Red Lake area was in part dependant on the examination of claims staked prior to 1973, and on examination of several gold properties as a result of the increase in the price of gold.

It must be emphasized that a healthy mining industry depends on a satisfactory rate of discovery to replace ore extracted. The present low rate of exploration in Ontario is a matter of considerable concern, and every effort is being made to encourage exploration. This effort includes stabilizing policies, delineation of favourable geologic areas and ensuring that these areas are not withdrawn from staking prior to at least mineral potential evaluation and preferably active exploration.

New staking increased in the Kenora Mining District area but decreased in the Red Lake, Patricia and

Thunder Bay Districts for an overall decrease of about 25 per cent. Barring a major discovery in the Region, this suggests that exploration intensity will probably decrease again in 1974.

It is difficult to predict where mineral exploration will concentrate in the next ten years. Certainly there is considerable validity to the comment that the best place to find a mine is in the shadow of an existing headframe.

This suggests that gold exploration will continue in Red Lake, Pickle Lake and the Beardmore - Longlac area and base metal exploration will continue in the Confederation Lake, Sturgeon Lake, Pickle Lake and Manitouwadge areas. A recent surge of interest in nickel will probably increase exploration in the Werner Lake area, the Obonga Lake area and the Shebandowan area and in the Pardee Township area. Growing interest in iron will result in increased exploration in the area between Bruce Lake and Lake St. Joseph, and the areas around North Spirit Lake, Laurie and Duckworth Townships, Skibi Lake and Geraldton. Increased interest in molybdenum, uranium and lithium is probable in the future.

## 5. Recreation and Tourism

This is a broad and complex subject which includes a variety of recreation facilities and leisure time activities. For discussion purposes, the subject will be sub-divided into the following categories:

- (a) Park Facilities
- (b) General Crown Land Recreation
- (c) Cottages
- (d) Commercial Lodges
- (e) Angling and Hunting
- (f) Summary

Each category will be analysed according to the facilities provided, the amount of present use and the benefits to the Region.

With reference to the recreation benefits, it is necessary to emphasize an important distinction. Recreation by residents of Ontario is considered to be a social amenity, and the benefits are measured in user-days. Recreation by people from outside the Province is considered to be tourism, and the benefits are measured in jobs provided and dollars generated in the Provincial economy.

a) Park Facilities

(i) National Parks

One National Park is currently under development in the Region. A memorandum of agreement to establish Pukaskwa Park was signed by Canada and Ontario in 1971.

The park area of 725 square miles is located south of Marathon on the shore of Lake Superior. Although planning for the park is not completed, it is expected that it will provide a significant amount of wilderness hiking and a limited amount of organized camping.

Projected use of Pukaskwa Park is 75,000 visitor days annually by 1975, and increasing to 250,000 visitor days annually by the year 2000.<sup>1</sup> Approximately 90 percent of these visitors will be from outside the Region. Thus this facility, when it is operational, will have a significant impact on the Regional economy both in terms of jobs created and dollars spent.

(ii) Provincial Parks

There are 22 Provincial Parks in the Region having a total area of 1,655,647 acres. (Map 27)

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PUBLIC RECREATION  
DEVELOPMENTS





Table 7

PROVINCIAL PARKSNORTHWESTERN ONTARIO PLANNING REGION — 1973

Park	Area (acres)	Developed Campsites	Classification
Aaron	173	86	IV
Blacksand	3,353	100	III
Blue Lake	874	175	IV
Caliper Lake	331	93	IV
Inwood	82	80	IV
Kakabeka Falls	1,039	161	III
Klotz Lake	210	31	IV
Lake of the Woods	2,673	100	III
MacLeod Lake	200	76	IV
Middle Falls	11	20	IV
Neys	8,150	148	III
Ojibway	6,130	54	IV
Ouimet Canyon	1,920	—	V
Pakwash	1,507	64	IV
Quetico	1,148,800	135	I
Rainbow Falls	1,422	213	IV
Rushing River	469	166	IV
Sandbar Lake	7,800	77	IV
Sibley Lake	60,380	217	III
Sioux Narrows	320	71	IV
White Lake	4,265	204	IV
Winisk River	371,200	—	II
Totals	1,655,647	2,271	

## PARK CLASSIFICATION

I Wilderness

IV Recreation

II Wild River

V Nature Reserve

III Natural Environment

The parks vary in size from 82 acres for Inwood Park to 1,148,000 acres for Quetico Park. There is one Wilderness Park (Quetico), one Nature Reserve (Ouimet Canyon), one Wild River (Winisk River), five Natural Environment Parks, and 14 Recreation Parks. In addition, Fort William Historical Park is currently under development at Thunder Bay. There are 2,271 developed campsites in 20 of the parks. Ouimet Canyon and Winisk River have no developed campsites. Table 7 shows the area, number of campsites and classification for each park.

In 1972, there were 374,000 camper days in the parks of Northwestern Ontario. Although the weather was quite poor in 1972, the parks along Highways 11 and 17 averaged 66 percent occupancy during July and August. Over the past ten years, park use has been increasing on the average by 10 percent annually.

There are no figures on park use by residents of the Region, however, statistics do indicate that nearly 70 percent of all campers are from outside Ontario. If it is assumed that a significant proportion of the remaining 30 percent (about  $\frac{1}{2}$ ) are from the rest of Ontario, then it is probable that 80 to 90 percent of park use contributes to the tourist sector of the Regional economy. However, no benefit measures are available for this use.



In addition to the existing parks, there are 24 Provincial Park Reserves in the Region totalling some 712,700 acres. (Map 27 and Table 8)

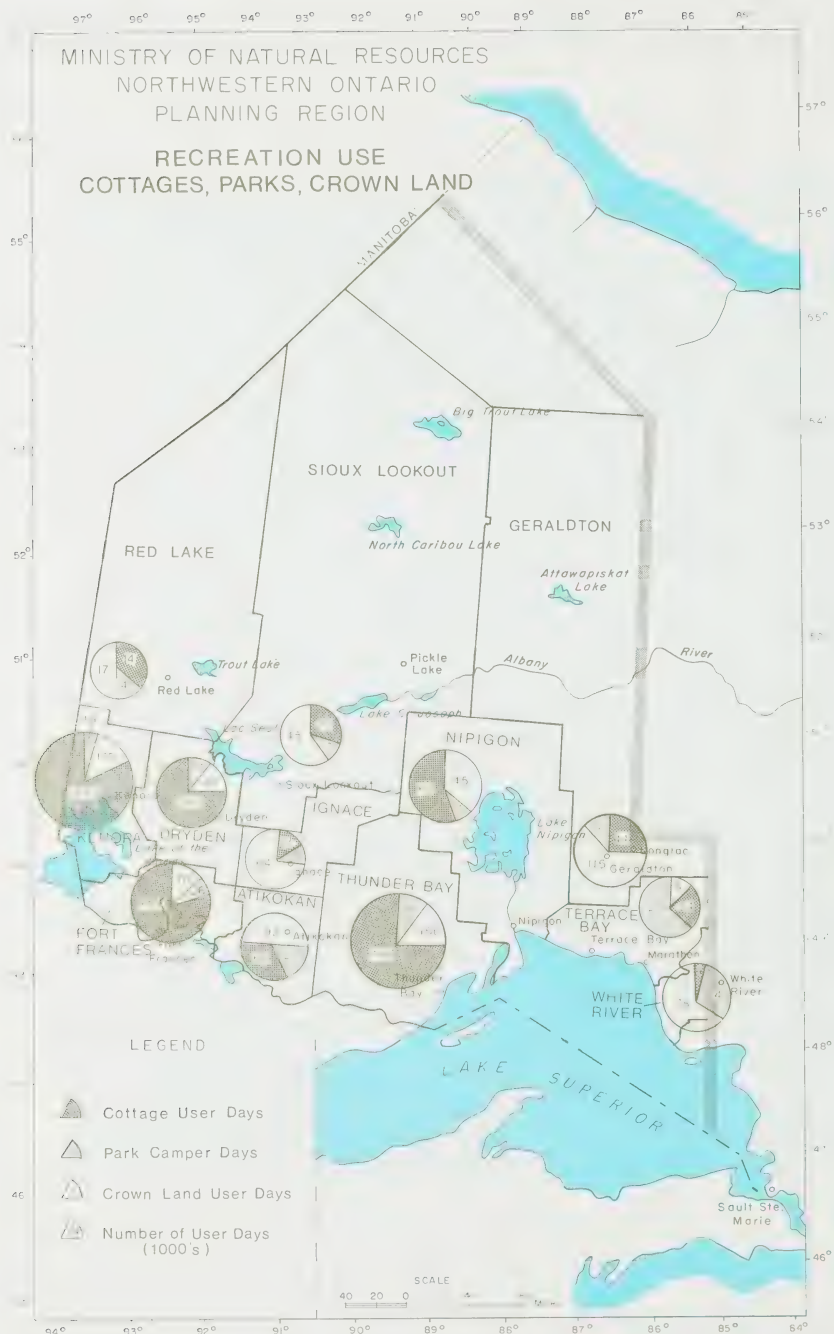
(iii) Conservation Areas, Private and Municipal Parks

There are four conservation areas in the vicinity of Thunder Bay developed by the Lakehead Region Conservation Authority. These, plus a number of agreement forests, and other areas occupy about 5,000 acres of land, and provide day use recreation for local residents. No overnight camping is permitted.

There are 67 private and municipal parks in the Region providing 1,987 campsites. There are no figures available of the amount of use or benefits derived from these areas.







## General Crown Land Recreation

A very significant proportion of recreation and tourism occurs in an unorganized manner on the Crown Lands of Northwestern Ontario. The activities involved included picnicking, bathing, angling, hunting, camping, canoeing and boating.

Some of this activity takes place on specific sites adjacent to a road or water depending on the particular activity involved. There are approximately 240 "officially designated" access points operated by the Ministry in the Region. There are, of course, many more unofficial sites associated with roads, and almost an infinite number located along the lakes and canoe routes in the hinterland.

There is no estimate of the total amount of recreation and tourist use of Crown Lands in Northwestern Ontario. One survey was done on the recreation use associated with roads during the period from May to September, 1972. That survey estimated a total 919,000 user days in the Region. The distribution of that use across the Region is shown on Map 28. Kenora District had the most use with 175,000 user days, followed by Thunder Bay with 150,000 and Geraldton with 115,000. Terrace Bay District had the lowest use with only 8,000 user days.

The same survey indicated that residents of the Region accounted for approximately 30 percent or 275,300 user days. The remaining 70 percent was divided among Americans (approximately 50 percent) and other Canadians (20 percent). Based on the expenditure figure of 19.4 dollars per day per person, the economic impact of the people from outside the Region was 12.5 million dollars.

c) Cottaging

There are nearly 15,000 cottage units in Northwestern Ontario, and almost 70 percent are owned by Canadians. (Table 9 )

The pattern of cottage development is significantly different from the population distribution in the Region. (Map 29) Kenora, Fort Frances and Dryden have a much larger proportion of cottages per capita than other districts. This is due partly to the large number of non-resident cottage owners in these three districts, but other factors also have influence. Even considering the non-resident factor, some 4.7 percent of the population in the western part of the Region own cottages as compared with 2.6 percent in the eastern portion. Some of this disparity may be explained by the different historical development of the two areas, or by differences







Table 9

Cottaging in Northwestern Ontario by  
Ministry of Natural Resources  
Administrative Districts and Regions

District	Number of Cottages	Percent Resident <sup>1</sup>	Number of User Days	Value of <sup>2</sup> Cottaging
Dryden	1,401	50.9	280,200	\$ 1,120,800
Fort Frances	2,273	38.7	454,600	1,818,400
Ignace	63	11.6	12,570	50,280
Kearney	6,239	73.0	1,247,800	4,991,200
Red Lake	69	8.6	13,800	55,200
Sioux Lookout	117	36.7	23,400	93,600
Northwestern Region Sub-Total	10,162	61.1	2,018,150	\$ 8,129,400
Atikokan	323	44.8	64,600	\$ 258,400
Geraldton	219	71.2	43,800	175,200
Nipigon	310	92.2	62,000	248,000
Terrace Bay	122	84.4	24,400	97,600
Thunder Bay	3,703	52.6	741,000	2,964,000
White River	18	50.0	3,600	14,400
North Central Region Sub-Total	4,697	88.0	929,400	\$ 3,757,600
Northwestern Ontario Planning Region Total	14,859	69.2	2,947,550	\$ 11,887,000

1. "Resident" means resident of Canada.

2. Based on an average of 200 user days per unit.

3. Based on an average of \$800 per unit.

in natural capabilities. Whatever the reasons, there is currently an unsatisfied demand for cottage lots in the Region.

The benefits derived from cottaging by the resident population can be calculated in user days. The number of resident cottages is 8,200 and it is estimated that each generates approximately 200 days<sup>1</sup> of use for a total of 1.6 million user days.

The benefits added by the non-resident cottages can be calculated in dollar impact by assuming each cottage unit generates approximately 800 dollars per year in the Region.<sup>2</sup> This non-resident cottaging activity produces approximately 5.5 million dollars. This impact has several sources of leakage out of the Region, but these leakages are probably somewhat less than those of the commercial lodging sector.

<sup>1</sup> Cottage and Camp Survey and Recreation Potential Study, (MINISTRY of Natural Resources Unpublished Report, 1972). This is an average figure derived from this report.

<sup>2</sup> This figure has been derived from a number of studies in Ontario and one in Wisconsin.



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DISTRIBUTION OF  
COMMERCIAL LODGES



d) Commercial Lodging

The distribution of the commercial lodging facilities also exhibits an imbalance between the eastern and western portions of the Region. (Map 30) The western area has approximately 500 of the 650 commercial lodges in the Region. In this area the majority of the lodges are highly concentrated about nodes such as Nestor Falls, Sioux Narrows, Kenora, and Fort Frances. Minor concentrations are found at Sioux Lookout, Eagle Lake and Ear Falls. Most of the remainder of the lodges are found along the main highways. The main concentrations of fly-in tourist operators are based at Fort Frances, Kenora, Red Lake and Sioux Lookout.

In the eastern part of the Region the major concentration of commercial lodges is near Thunder Bay, while the remainder are strung out along the highway corridors.

The benefits generated by this activity in terms of dollar value added to the Region's economy is dependent on a number of factors. Size, location, facilities, management and season of operation all affect the income generated by the commercial lodge. Another important factor is the ownership of the lodges. Because 45 percent of the owners of commercial lodges are non-residents, a portion of the money generated by this business "leaks"

out of the Region as the owners, and often the temporary employees, leave to return to permanent homes elsewhere. The total dollar value has not been established or even estimated for this sector of the economy.

The emphasis of commercial lodging seems to be shifting from the fishing and hunting resort to the highway service accommodation and the "four season" family resort operation, including camping facilities for tents and trailers. The expansion of these new types of commercial lodging activities should, according to various tourism studies, be focused in areas of high recreation activity such as Lake of the Woods and Thunder Bay.

The dollar and employment benefits from the commercial resort sector of the economy have significant opportunities for expansion. However, in relation to other economic activities including forestry and mining, commercial lodging will not retain its present position.

#### Angling and Hunting

##### (i) Angling

Within Northwestern Ontario, the sport fishery may justifiably be claimed to be the backbone of the tourist industry. It also provides traditional recreation and food for a significant percentage

of the resident population. Yellow pickerel is the main species sought by both the tourists and local residents. Its popularity is due to its taste and ease with which it can be caught. Northern Pike are second in popularity because of their size and fighting characteristics. Both of these warm water species are found throughout the Region and are popular for both summer and winter fishing. The most popular cold water species in the Region is lake trout, which is fished most intensively during spring and fall. The species is important because of its taste and possible trophy value, for it is one that is not easily caught.

In addition to yellow pickerel, northern pike and lake trout, a wide variety of other sports fish are present in the Region. These include small-mouth bass, maskinonge, sauger, black crappie, brook trout and rainbow trout, and while all are popular they are definitely in second order of importance.

In 1970-71, there were in excess of 4.7 million user days of angling throughout the Region. It should be noted though, that angling is an activity which may take place separately or in association with a facility such as a cottage.

The benefits this activity can be measured by are the 2.7 million user days experienced by the residents of Ontario and by the 45.1 million dollars estimated to have been spent by non-resident anglers in the Region during 1970.

By 1991 it is estimated that the angling activity in Northwestern Ontario will almost have doubled to a level of 7.1 million user days.<sup>1</sup> This should result in a resident benefit of some 4.6 million user days and a tourism benefit of some 68.9

million dollars.

#### (iii) Hunting

In the Northwest the pursuit of moose and deer continue to provide a substantial contribution to the people of the Region, both in terms of user days of recreation enjoyed, and tourist dollars earned. Black bear are actively hunted in the spring and fall by non-residents. Waterfowl and other small game are pursued in the fall of the year, primarily by local residents, however figures are not available as to the extent of this activity.

The most active deer hunting areas in the Region are around Kenora, Fort Frances, and Dryden, while



moose hunting activity is more evenly distributed across the Region. In 1971-72 there were 38,866 moose and deer hunters in the Region. This resulted in some 251,000 user days of hunting by local residents, and 85,000 user days by non-residents. The non-residents spent an estimated 2.8 million dollars in the Region.<sup>1</sup>

f) Summary

An interesting comparison of some recreation activities is shown on Map 28 and in Table 10. In this comparison, cottaging represents 70 percent of the user days, while Crown land and camping in Provincial Parks are 21 percent and 9 percent respectively. These figures certainly substantiate the relative importance of cottaging in the Regional recreation picture.

It is important to emphasize the interrelatedness of recreation activities in the Region. This is particularly important if comparisons are made between angling and hunting and other activities such as cottaging, Crown land recreation and commercial lodging. Although benefit measures have been given for each of these activities separately, many are not mutually exclusive. As a result, aggregation of benefits is virtually impossible.

<sup>1</sup> Wildlife Branch, Ministry of Natural Resources



Finally, it should be realized that only the most superficial picture has been provided of the recreation sector. Information on Provincial Park use is generally good, while cottaging, angling and hunting data is only adequate. Data on commercial lodge and Crown land use is sketchy at best, and non-existent in many instances. Some care should be taken in the use of statistical information from this section, as much of it is valid only in a relative sense.

## 6. Water

Water has multiple uses which no one measure can adequately describe. The major use is consumption in industries, communities and in thermal power generation. In total this amounts to approximately 400 million gallons per day, equaling 0.004 percent of the average total daily runoff of Northwestern Ontario. Adding to this, an estimate of the water used to assimilate discharged wastes, the percentage probably equals less than 1 percent of the total available. That portion of stream flows and lake levels affected by dams, principally for hydro power generation, possibly equals 10 percent of the total flow and volume of streams and lakes. (Map 31)

Among industries, pulp and paper mills are the largest users of water. The ten pulp and paper mills in Northwestern Ontario consume a total of 190 million gallons of water daily. The four mills at Thunder Bay account for almost half of this total. It is probable that wood production in the industry will more than double, with possibly a proportional increase in water use.

Virtually all the water used by pulp and paper mills is discharged again into lakes and streams as waste. Both in terms of its volume and its impurities, this waste is most damaging to the natural aquatic environment. Because of their complex nature, however, these wastes are very difficult to treat.

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MAJOR WATER USES





Thus far, all mills have installed primary waste treatment facilities to remove the bulk of suspended solids, and some have installed further secondary waste treatment facilities to remove finer solids and dissolved organic matter. This still does not represent one hundred percent treatment, but it has already added substantially to production costs, and more stringent standards may place Ontario pulp and paper mills at a competitive disadvantage.

Wastes from mine-mill operations are also a potential hazard to the natural aquatic environment. Waste water from the tailings of base metal mine-mill operations are of particular concern because they can carry lead, copper, zinc and nickel which are especially toxic to fish species. Minimum requirements of waste treatment for mine-mill operations have been recently defined by the Ministry of the Environment. More stringent requirements will be defined for a specific operation should they be warranted. These, however, will take into account environmental as well as cost factors.

Approximately 125 million gallons of water daily are consumed by communities for largely domestic purposes. The major share of this is accounted for by the City of Winnipeg which withdraws 100 million gallons daily from Shoal Lake, off Lake of the Woods; and, by the City of Thunder Bay which withdraws a total of 14 million gallons daily from Loch Lomond and Lake Superior. Future consumption is difficult to forecast,

but can be expected to increase at a rate above that of population growth. The City of Winnipeg is currently negotiating for an additional 100 to 200 million gallons daily from Shoal Lake.

About 95 percent of the water used for largely domestic purposes is discharged as waste into lakes and streams. The Ministry of the Environment is attempting to ensure that all communities and sizeable concentrations of population are provided with a communal sewage disposal system with at least primary waste treatment facilities. Some communities have installed secondary waste treatment facilities. Together these can achieve a 90 to 95 percent treatment level of domestic wastes. There are no requirements for further tertiary treatments at present, but this may be required in the future if eutrophication problems develop.

Ontario Hydro's thermal plant at Thunder Bay consumes 80 million gallons of water daily in the generation of electricity. Expansion of this plant from its present capacity of 125 megawatts to 400 megawatts will increase water intake to 265 million gallons daily. An additional thermal plant is also being planned, somewhere between Nipigon and the Pigeon River, which will have an eventual capacity of 2800 megawatts and an eventual intake of 1,600 million gallons of water daily.<sup>1</sup> All this water will come from Lake Superior and in total will amount to 1865 million gallons daily, or,

Generating Station Site Selection Program, Northwestern Region, (Ontario Hydro, 1974).



approximately the equivalent of the average daily flow of the Kaministiquia River.

The water used by such thermal plants is all discharged again but at a temperature 10 to 20°F above the normal water temperature. This heated effluent, particularly in the increasing volumes indicated, can unnaturally and adversely affect aquatic organisms and their habitat in the receiving water body.

Of the miscellany of other water uses, hydro power generation is the most significant. It entails the most extensive management and disruption of the natural water regime through dam constructions, watershed diversions and control of lake levels and stream flows. The major hydro developments are on the Nipigon, English, Winnipeg, Kaministiquia and Aguassabon Rivers. Most sites of potential hydro power have been developed in Northwestern Ontario. Those remaining are considered to be too small or too remote to be developed economically at this time.<sup>1</sup>

## 7. Degree of Development

Map 32 shows the generalized degree of development pattern for the Planning Region. The standards used to prepare this map of present degree of development are given in the report "Guidelines for Land Use Planning", Ministry of Natural Resources, January 1, 1974.

An analysis of the degree of development map indicates that practically all development has occurred in the southern half of the Region below the 50th parallel.

There are four significant areas where development is moderate to dense. These are around Thunder Bay, Dryden, Fort Frances-Rainy River and Kenora. Areas of lesser significance, but also showing moderate to dense development are the Geraldton-Longlac area, and from Rosspoint to Marathon.

The remainder of the Region is either sparsely developed or not developed at all. These areas are important for broad land use planning in order to guide the choice of wilderness or other low intensity use areas. In addition, they may be important in providing variety in the landscape, or future flexibility by permitting the deliberate designation of areas for lower density development than the inherent capability of the land might otherwise permit.

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GENERALIZED DEGREE  
OF  
DEVELOPMENT





A large scale, more detailed map showing degree of development on a 100 square mile grid has been prepared for the Region. Because of the size limitation, the detail on this map could not be duplicated on Map 32 in this report.

## VI. Other Plans

### 1. Plans of Other Ministries

In preparing the Strategic Land Use Plan, it is necessary to review the plans of other ministries and agencies to determine the current policies for the Region. Necessarily, this review is limited only to those plans which meet the following criteria:

- recent enough to represent current policy;
- broad enough to cover a significant portion of the Region; and
- contain policies relating directly to the Strategic Land Use Plan.

Only four documents meet all these criteria, and these are described briefly below.

A. Design for Development: Northwestern Ontario Region  
Phase 2: Policy Recommendations  
Department of Treasury and Economics, October 1970.

As it is described later in Chapter VIII of this report, Design for Development provides the overall framework for the Strategic Land Use Plan. It is therefore inadequate to try to summarize the contents of that document in these pages. It is really necessary to read Design for Development in detail along with the Strategic Land Use Plan.

Design for Development contains a summary of Regional problems and potentials as they were perceived in the

late 1960's, and these have changed little up to this time. It then presents broad goals and objectives for the Region in terms of an overall growth strategy, the selection of growth centres, and the statements of targets for new employment and a host of other socio-economic factors. Some of these objectives are summarized in Chapter VIII of this report and will not be described further here.

B. Development of Tourism in Northern Ontario  
Ministry of Industry and Tourism, November, 1972.

This report was prepared for the Ministry of Industry and Tourism by consultants, with the assistance of a study committee comprised of representatives of the tourist industry as well as the Ministry of Natural Resources.

The purpose of the study was to formulate a set of planning concepts for the development of the tourist industry so as to maximize the economic benefit of tourism to Northern Ontario in a manner consistent with the natural resources of the area.

The report established seven broad objectives for Northern Ontario which are summarized briefly as follows:

- a) to achieve the most suitable use of the land for tourism in relation to the resources;

- b) to achieve optimum intensity of land use in relation to the capacity of the resources;
- c) to achieve the most effective arrangement of land uses in relation to the activities being pursued and the facilities required;
- d) to achieve the most effective location of land uses in relation to existing infrastructure;
- e) to achieve optimum form of investment in relation to the return on capital and volume of expenditures;
- f) to achieve a diverse mix of tourist attractions; and
- g) to achieve a high level of service for the visitor.

Two "key attraction areas" were identified within North-western Ontario, and it was recommended that future tourist development be concentrated in these areas. These are the Lake of the Woods and the area around Thunder Bay from Nipigon to Pigeon River.

A number of other recommendations included, camping facilities, cottaging, marinas, ski facilities, snow-mobile facilities, angling and hunting and transportation facilities throughout the Region.



C. Kenora-Rainy River Area Transportation Study  
Ministry of Transportation and Communications,  
June 1969.

Within the context of Design for Development, Northwestern Ontario, the Kenora-Rainy River Transportation Study was carried out according to these objectives:

- a) to promote connectivity, growth and diversification among growth centres;
- b) to promote growth of the forest, mining and tourist industries;
- c) to effectively satisfy resident travel desires; and
- d) to conserve the inherent wilderness qualities of the area.

The study recommended improvements to the following highways:

- a) Highway 11 - between Thunder Bay and Atikokan
- b) Highway 17 - between English River and Manitoba border
- c) Highway 71
- d) Highway 599
- e) Highway 642

The following new highways are proposed by the study:

- a) Sioux Narrows to Eagle River
- b) Fort Frances to Dryden

The study also considered linkages between Atikokan and Ignace, Sioux Lookout and Lake St. Joseph, and Highway 800 to Savant Lake, but all were rejected at this time for a variety of reasons.

D. Long-Range Planning of the Electric Power System  
Ontario Hydro, February, 1974.

This report reiterates Ontario Hydro's objective to supply all electric demands safely, reliably, within environmental standards, and at the lowest feasible cost.

Ontario Hydro estimates a continuation of load growth at a rate of 7 percent per annum over the whole province, although a slightly lower rate might be expected in Northwestern Ontario.

Although the Ontario Hydro system was almost entirely hydro-electric until 1951, now most hydro sites have been developed to full capacity, and only a few sites remain which could be economically developed. There is some possibility of developing energy on several northern rivers such as the Albany, but the high cost currently makes these unattractive. In the future Ontario will likely depend almost exclusively on fossil and nuclear fuel plants for electrical energy generation.

Future plans in Northwestern Ontario include the expansion of the existing thermal station at Thunder Bay, and the construction of a new thermal generating station, possibly partly fossil and partly nuclear fueled in the vicinity of Thunder Bay.

## 2. Plans of the Ministry of Natural Resources

The Ministry of Natural Resources has been making plans that influence the use of land for many years. All of these plans are at the sub-regional level of detail and should be considered as means of implementing the Strategic Land Use Plan rather than determining it. The Ministry plans include the following:

- (a) Forest Management Plans
- (b) Park Plans (e.g. Quetico)
- (c) Fisheries Management Plans (e.g. Lake of the Woods and Rainy Lake)
- (d) Wildlife Management Plans
- (e) Local land use plans such as:
  - Boundary Waters
  - Northern Light Lake
  - Graham
  - Ignace
  - East Lake Nipigon
  - Onaman Lake
  - Lake Superior North Shore
  - White River District

## VII. Summary of Problems and Issues

The purpose of this chapter is to summarize the key problems and issues which concern the Ministry in the formulation of the Strategic Land Use Plan for Northwestern Ontario. The identification of the problems was a task in itself and for this report three sources of information were used. These were:

- (a) recurring subjects in local newspapers
- (b) Man and Resources meetings
- (c) general discussion with people

While every attempt has been made to identify the main problems and issues, it is quite possible that the list presented here is not complete. An important part of the public review of this report is the identification of any additional issues which may have been omitted.

The following is a summary of the key problems and issues which this Ministry will have to deal with in Northwestern Ontario. They are not presented in any order of priority.

### 1. Public Ownership of Resources

The feeling exists that tighter controls should be placed on the harvesting of fish and wildlife. There appears to be a feeling that these resources should be primarily for Canadian residents, and that non-residents should pay more for the opportunity to harvest them.

## 2. Mercury Content in Fish

The large number of lakes which exhibit a mercury content in fish above the acceptable minimum of .5 parts per million is having a noticeable effect on the tourist industry and the lives of Indians in some parts of the Region. The affect on tourism is reflected in a loss of jobs and dollar impact on the Regional economy, while the affect on the Indians is reflected in job loss, resulting in social and cultural disruption.

## 3. Water

### a) Diversion

There is a very real concern over the possible diversion and use of Northern waters for hydro-electric production. The over-riding concern is that this production is for sale to the United States market, as it does not appear that such production is necessary for the Canadian economy.

### b) Fluctuations

There is concern over environmental damage caused by water level fluctuations in lakes and rivers. A problem is to determine if the fluctuations are natural or man-made and then to control them to prevent additional damage.

c) Quality

It would appear that the overall water quality in Northwestern Ontario is suffering because of industrial and municipal pollution, and over use by recreationists.

Some small communities in the Region already have problems obtaining an adequate supply of potable water.

#### 4. New Highways

There are three roads which are being discussed actively in Northwestern Ontario at the present time.

- (a) Ignace to Atikokan (proposed)
- (b) Sioux Lookout to Sturgeon Lake (open)
- (c) Fort Frances to Dryden (under construction)

It is commonly thought that a new highway automatically stimulates economic activity because of increased accessibility. This has created conflicts between various centres competing with each other for real or imagined benefits from a road proposal.

New roads into the hinterland create resource management problems for the Ministry by dispersing recreation use over vast areas which are difficult and expensive to administer, and in some instances upset existing economic activities such as fly-in tourist establishments.

## 5. Foreign Ownership

There appears to be a general concern about the need to preserve the land as a heritage for the people of Ontario. Also, there is a very real concern about the amount of private land which is being acquired by non-residents, and the acceptability of this practice is being seriously questioned.

## 6. Urban Expansion

- a) In larger centres, a great deal of land is tied up by a few large developers. Land costs and housing costs are rising in all major centres. Perhaps government should attempt to stabilize land prices close to large urban areas.
- b) In some small communities, expansion is hampered by the lack of suitable land. This is creating social and environmental problems for the residents of these areas.
- c) Communities are expanding without proper consideration for other land use control to protect agricultural and recreation areas. There is a need to ensure a variety of land uses around all urban centres in the Region.

## 7. Growth

There seems to be a great pride in the quality of life enjoyed by people in Northwestern Ontario. So much so that proposed

economic developments are measured not only in terms of economic benefits, but in terms of social costs and the loss of environmental quality. People appear to want the best of both worlds - a high standard of living with all modern conveniences, but no loss of environmental quality.

## 8. Public Participation in Planning

There appears to be a concern that current planning accommodates the better organized and more vocal special interest groups, and overlooks the desires of individuals and the public generally.

## 9. Commitment of Wood Supply

There is currently controversy in some parts of the Region concerning the commitment of available wood supplies to large companies. Some small sawmill operators have in the past preferred to obtain wood from private lands. As the supplies from private land run out, these operators have sought wood from Crown lands which has historically gone to the larger pulp and paper and lumber mills. As a result, local shortages of wood are causing some small sawmills to close or to curtail operations.



## 10. Shortage of Day Use Recreation Opportunities

There appears to be a shortage of day use recreation opportunities around some of the larger centres in the Region, particularly Thunder Bay. In some instances, this is resulting in conflicts between private land owners and the public over access to recreation opportunities.

## VIII. Approach to Policy

### A. Terminology, Goal and Program Objectives

The term 'policy' is defined as the long term decision concerning the objectives to be met and the general means of achieving them. For the initial stages of the land use planning process the main emphasis regarding policy is to determine the objectives.

Objectives are quantifiable ends that are chosen to be met and normally should be stated in terms of human impact such as jobs or person days of recreation or dollars earned. In some cases such objectives are not available and policies are stated in terms of the means rather than the ends. For example, a parks policy stated in terms of acres of park rather than person days of recreation is a means policy. A policy stated in that manner is called a "Proxy Policy".

The first general guides to policy for the Strategic Land Use Plan are the goal and broad program objectives of the Ministry of Natural Resources as follows:

#### a) Goal Statement

To provide opportunities for outdoor recreation and resource development for the continuous social and economic benefits of the people of Ontario and to administer, protect and conserve public lands and waters.

## b) Broad Program Objectives

### i) Land Management Program

To administer, protect and conserve public lands and waters; and to ensure with other agencies, through participation in planning and control, co-ordinated uses of all lands and waters.

### ii) Outdoor Recreation Program

To provide from public lands and waters and to encourage on other lands and waters:

- A wide variety of outdoor recreational opportunities accessible to and for the continuous benefit of the people of Ontario;
- The identification and conservation of unique or representative physical, biological, cultural and historical features of the province;
- A continuous contribution to the economy of Ontario from tourism and its related industries.

### iii) Resource Products Program

To provide an optimum continuous contribution to the economy of Ontario by stimulating and regulating the utilization of available supplies of fish, furbearers, minerals and trees by resource products industries.

## B. Candidate Policies for Strategic Planning

To assist in preparing the Strategic Land Use Plan at the regional level a set of candidate or proposed policies has been assembled at the provincial level in the document called "Ministry of Natural Resources Strategic Land Use Plan, Part One, Ontario". That document contains candidate policies of the Ministry of Natural Resources, together with some general government policies and also policies of certain other ministries.

Where policies of other ministries are listed, it is to be assumed that these are the policies adopted by the Ministry of Natural Resources for the purpose of preparing the Strategic Land Use Plan. In no way should this be construed as an attempt by the Ministry of Natural Resources to shape policy or plans for other ministries. Rather, the policies are adopted to contribute to the plan and avoid land use conflicts.

The Strategic Land Use Plan is being prepared for the long term which is taken to mean in excess of 20 years. Therefore, the policies outlined later should all be assumed to have a planning horizon of at least the year 2000.

The candidate policies for Northwestern Ontario were derived and condensed from the policies contained in the provincial plan. Some of these policies are official and others are proposed. In either case they should all come under careful scrutiny at the regional level and proposals for alterations and refinements to these policies or for complete alternatives are appropriate and welcome at this time.



With the foregoing guidelines in mind, the following policies are proposed for adoption for the purpose of preparing the Strategic Land Use Plan for Northwestern Ontario.

## 2. Population

The population in 1971 was 224,776. By the year 2001 the population is planned to be 336,000.

## 3. Local and Traditional Users

The goal of the Ministry of Natural Resources is directed towards the economic and social welfare of the people of Ontario by providing recreation opportunities and by providing for resource production. To achieve the goal effectively it may often be necessary to apply the planning principle of the public good having primacy over individuals.

At the same time, it will be necessary to respect the needs and wants of local and traditional users of particular areas. The policy of the Ministry of Natural Resources is to give local and traditional users special consideration during the planning process. Unless specifically stated otherwise it will be assumed that local people of a planning area have higher priority than people from without the planning area.

Indians living in Northwestern Ontario are in many areas the local and traditional users. When a plan is prepared which

includes such areas the urgent need to communicate effectively with these people must be recognized. This part of the planning process must of necessity be given extra special attention in the case of Indians due to the remoteness of some of the settlements and the language differences.

#### 4. Environment

General policy is to maintain overall environmental quality at least as it now is. Of course improvements in some areas are being sought and will be achieved and new developments in other areas will degrade the environment. Thus, while the overall environmental quality may be maintained at existing levels, there will be both highs and lows developed as Ontario continues to grow.

The following recommendation from the Task Force Onakawana, chaired by Everett Biggs (Deputy Minister of the Environment) regarding natural resource development and environmental damage should be regarded as general policy for the Strategic Land Use Plan.

That the acknowledged fact that the proposed site of the development at Onakawana is remote and is not rich in forest soil, wildlife and other resources, as compared with some of the naturally productive regions of Ontario, not be considered justification for any relaxation of the regulations designed to protect the environment and that the environment not be damaged to an extent considered avoidable and be restored as quickly as practicable.



## 5. Orderly Development, Balance and Future Flexibility

Orderly development implies that developments occur within the framework of a plan. Without a policy of orderly development, the preparation of a land use plan would be futile.

'Balance' suggests that different kinds of development must occur in harmony and balance with each other. Communities are a system where development of one kind must be balanced by developments of another kind.

For example, a large industrial expansion within a community might necessitate the development of a housing project. It might also require that additional recreation development take place to balance the magnitude of the additional population brought on by the industrial expansion.

A policy of 'future flexibility' suggests that it is not desirable to commit to development all of our resources to their full potential right now. A certain amount of our resources might well be left undeveloped so future generations have some say in resource allocation. Another reason for adopting a future flexibility policy is to maintain a "cushion" or "contingency" resource surplus against future disasters, or errors in projections of future needs.

Within the policy for future flexibility we could well explore and evaluate our resources, however we should not necessarily commit all our resources for immediate and irreversible development.

To provide some future options after the year 2000 it is proposed as policy that a cushion shall be maintained for all major land uses.

In addition to the foregoing, it is also suggested that certain kinds of developments are more flexible than others, and where a choice is possible we might well opt for those developments that offer greatest future flexibility.

## 6. Multiple Use, Sequential Use and Single Use

'Multiple Use' means that two or more uses occur in the same general area, either simultaneously, or in sequence cyclically. For example, forestry operations and hunting may take place within a forest management unit either generally within the same overall area, or by staggering the uses seasonally.

'Sequential Use' is quite different from multiple use in that only one use is permitted at a time, and a cycle of uses does not occur. The uses are separated by time. For example, forest operations may be the first use, followed by gravel extraction, which is followed by rural residential. The uses in this case are not continuous except for the final one.

'Single Use' means that only one basic use is permitted. At the broad level of planning it is likely that very few areas will be considered for single use. The only likely candidate for this designation are wilderness areas.

'Multiple Use' has been a long standing policy of the Ministry of Natural Resources. For the most part it is assumed that the bulk of the lands and waters of Ontario will be planned and managed under the multiple use concept.

## Candidate Particular Policies

### 1. Urban

The urban policy will be outlined in Design for Development Phase 2 concerning centres of opportunity (growth points) as follows:

- Primate Centre - Thunder Bay
- Strategic 'A' - Kenora-Keewatin, Fort Frances,  
Dryden, Geraldton
- Strategic 'B' - Atikoken, Rainy River, Red Lake-  
Balmertown, Sioux Lookout, Nipigon-  
Red Rock, Terrace Bay, Marathon,  
Manitouwadge, Ignace.

The following definitions of urban areas are condensed from the Design for Development report for Northwestern Ontario:

A Primate Centre is characterized by a population, together with its area of influence, of greater than 50,000. It also has a variety of employment opportunities due to large firms and a wide range of retail and service functions.

Strategic 'A' centres are characterized by a population centre between 3,000 and 16,000 and total area of influence population from 7,000 to 30,000. The economy is resource oriented but with some diversity of industrial mix and with a good variety of retail and service functions.

Strategic 'B' centres are between 1,100 and 6,500 in population and influence a total population of 3,000 to 11,000. Employment is largely restricted to a single resource based industry.

#### Discussion:

There is some reason to be concerned at the prospect of too rapid development of new and established communities which may be caused by industrial establishment or expansion. This could result in housing problems and recreation opportunity shortages.

## 2. Rural Residential

Proxy policy is to condone non-farm rural residential use excepting for proposed developments on Classes 1, 2 and 3 agricultural land, Classes 1, 2 and 3 Recreation land, hazard lands, sensitive areas or on strategic aggregate reserves.

#### Discussion:

The problem of rural residential use is very similar to the subject of cottaging and hunt camps and it may be well to treat all topics under one policy.

To avoid conflict with day use public recreation it may be advisable to set aside an area around designated urban areas where private recreation areas and rural non-farm residential will not be made available on Crown land.

Other suggestions concerning rural residential and cottages, etc., are that (a) all public uses should be higher priority, (b) sites should be leased rather than sold, (c) leases should be to Canadian citizens only, (d) the fee should be such that the users pay for all public costs.

### 3. Agriculture

Proxy policy for agriculture is to reserve all the Class 1, 2 and 3 land for farming. In Northern Ontario it is also possible that the Class 4 land should be reserved for agriculture. In addition all viable farm communities and special crop production areas should be kept for agriculture.

#### Discussion:

The term 'viable' requires definition. This can best be done by the local agricultural representatives who should be consulted in this matter. There are now some 1,050 census farms in the Planning Region. Practically all of the accessible Class 1, 2 and 3 land is now under cultivation. Therefore the proxy policy for agriculture will not likely cause expansion of farmland unless the Class 4 land were to be utilized.

#### 4. Commercial Fish, Fur and Wild Rice

Major increases in per capita benefits are proposed. This will involve an increase of 100 percent for the harvest of fish, an 80 percent increase in direct employment and a 250 percent increase in the secondary industry. Fur harvest is to be increased by more than 100 percent and wild rice by up to 400 percent.

##### Discussion:

##### (a) Commercial Fish

Present benefits are: direct employment - 20,000 person days; indirect employment 5,000 person days; 6.5 million pounds of fish worth 2.1 million dollars. Policy to increase the catch by 100 percent seems sound, however employment benefits will likely not exceed a 50 percent increase.

A conflict between commercial fishing and sports fishing is recognized and a possible solution is suggested in the Sports Fish section of this report (page 12).

##### (b) Fur

There are about 1,000 trappers in the Region now. The proposed increase of 100 percent in fur harvest would likely result in an increase of trappers by about 50 percent.

(c) Wild Rice

The 1972 harvest was about 1.2 million pounds with a value of 2.1 million dollars, and between 400 and 1,000 people were employed for 2 to 3 weeks. This harvest varies considerably from year to year depending on the weather and water levels.

The proposed policy for expanded harvest might more realistically be set at a 200 percent increase rather than a 400 percent increase. Both cottaging development and changing water levels may have detrimental effects on wild rice production.

## 5. Forestry

The general policy intent is to utilize the full allowable cut and to provide a continuous contribution of benefits. The present cut is 2.5 million cunits and the allowable cut is about 6.3 million cunits, a significant to major increase in benefits is planned. Present funding for forest production will allow for the continuous production of 3.5 million cunits after the year 2020.

### Discussion:

Present benefits from forestry are some 15,000 primary jobs (in the woods and mills) and about \$250,000,000 in value of production. The proposed policy would likely result in at least a doubling of these benefits. Recent trends in the Northwestern Ontario Planning Region have suggested that the



total allowable cut for the area will soon be completely allocated. Some serious concerns in this regard are:

- (a) While the Strategic Land Use Plan is in preparation more of the allowable cut is being allocated. Total allocation of the allowable cut may preclude some options for land use and cause costly readjustments in the future.
- (b) The very rapid expansion of the forest industries in Northern Ontario may cause urban growth problems such as shortage of houses.
- (c) Disaster contingencies for such things as fire or wind-throw should be more fully considered.
- (d) Major potential conflicts with timber use are wilderness parks and natural environment parks.
- (e) Insofar as forestry operations will be greatly expanded, major efforts will be needed to make it as amenable as possible to other land uses. A strong implementation policy re cutting practices will be needed.
- (f) The general policy intent should be to utilize the full allowable cut that is consistent with all the needs of the client group - not simply to utilize the cut.
- (g) Present level of funding for forest regeneration must be increased greatly if the benefits from forestry are to be continuous.

## 6. Mining

General policy is to strengthen the contribution of minerals to the economy. First priority is to expand the extraction of minerals. It must be emphasized that a healthy mineral industry depends on a satisfactory rate of discovery to replace ore extracted. Therefore the expansion of geological knowledge and the role of exploration must be recognized. It is important that lands should not be withdrawn from mining until exploration is completed.

Second priority is to increase mineral processing. It should be noted that processing is encouraged now by the fact that no raw mineral products may be exported without special permission from the Minister.

For structural materials such as sand and gravel, the policy is to meet the demand as indicated by market requirements.

### Discussion:

Benefits from mining were some 4,000 jobs and the value of production about 210 million dollars in 1972. It is assumed that a policy to strengthen the contribution might well mean a significant increase in benefits. This could mean up to 50 percent increase in benefits, however the extent of the increase is difficult to predict.

Some concern is felt over the apparent conflict between the welfare of society in general and the goal of developers. While the goal of developers appears to be a quick maximum profit, society in general requires some form of optimization and continuous benefits.

The obvious conflicts for mining are (1) arbitrary withdrawal of land from staking. (2) parks and park reserves - as long as these are exclusive uses there will be conflict. (3) unnecessarily restrictive or variable pollution standards. (4) disposal of land before aggregate extraction under reasonable control.

## 7. Tourism

General policy of the Ministry of Industry and Tourism is to achieve a significant increase in Tourism benefits. Tentative Provincial targets for 1979 and subject to revision are:

Dollars Earned	-	from about 2 billion in 1972 to 3.1 billion
Direct Jobs	-	from 88,000 in 1971 to 137,000

General strategy of the Ministry of Tourism is to encourage more expenditures per visitor and to encourage a better distribution of benefits among the regions. Northern Ontario which now receives only 17 percent of the tourism dollars is to receive 20 percent by 1979.

A better seasonal distribution of benefits is also sought with some 60 percent achieved in fall, winter and spring.

Discussion:

For preparing land use plans, within the Ministry of Natural Resources, it will be necessary to recognize the overall Tourism policy. However, a degree of conflict may arise between the use of land for Tourism and the use of land for local recreation purposes.

The term "Tourism" means recreation by non-residents of a planning area. The term "Recreation" will be used to refer to recreation by local area residents.

It should normally be assumed that day use recreation by local citizens is of higher priority than tourism.

## 8. Outdoor Recreation

### (a) Sports Fisheries

General policy for sport fishing is to meet all of the anticipated demand in Northern Ontario. For this purpose the demand calculations were based on the present level of participation projected into the future at the rate of population increase (2 percent per year). All lake trout waters are considered to be critical to the achievement of the sports fishery objective since these lakes

are now being fished to capacity and they are very sensitive to overuse.

Discussion:

It may be advisable to separate policy for resident demand from policy for non-resident demand for sports fishing. Another problem connected with sports fishing is competition from commercial fishing. It is suggested that resident demand for sport fishing should have highest priority. Then an attempt should be made to optimize the mix of benefits from commercial fishing and tourism.

Major conflicts with angling are (a) urban developments, (b) industrial polluters and (c) cottage developments on streams. It will become increasingly difficult to meet angling demand in the future due to the variety of other uses that conflict with angling.

(b) Wildlife

(i) Recreation Policy (Ontario Residents)

Wildlife Viewing - There is to be a significant increase in opportunities for viewing wildlife

Hunting - For the Province as a whole the relative position of hunting is to be maintained at 0.6 user

days per capita. This will likely mean a slight decrease for Southern Ontario and a slight increase for Northern Ontario.

(ii) Tourism Policy (Non-resident Hunters)

For Northwestern Ontario, south of the 51st parallel, there is to be a slight (10 percent) increase in tourism benefits but the actual user days of hunting by tourists should remain constant.

For Northwestern Ontario, north of the 51st parallel, a significant increase in tourism benefits will be sought. This will require a slight increase in user days of hunting.

It should be noted that tourism benefits are measured in jobs created and dollars earned. Therefore increases in benefits are possible without necessarily increasing hunting pressure. For example, licence fees could be increased to get more benefits but the total number of hunters may remain constant.

Discussion:

There appears to be a strong feeling in the north that resident hunting should have priority over non-resident hunting. The moose management program may require shifts in hunting locations, hence

changing hunting pressures and as a result altering the amount of non-resident hunting. In fact, the moose management program may dictate a continual re-evaluation of the non-resident hunting policy for the Region.

(c) Parks

Near Urban Parks

Proposed policy for Northwestern Ontario is to provide Near Urban Parks (within 1 hour drive) to population concentrations of 60,000 or more. Near Urban Parks should be 500 - 2,000 acres in size and a minimum standard of 20 acres per 1,000 population will be used to calculate requirements.

Using the above standard, Near Urban Parks would be established near Thunder Bay.

Discussion:

The role of the Provincial Government in providing near urban recreation in Northern Ontario raises a number of important questions.

The proposed policy limits the establishment of Provincially operated areas to population concentrations of 60,000 or more. Is this satisfactory for the time period

envisioned for this plan? Should the policy be expanded to include smaller communities? If expanded to smaller communities should the minimum size remain constant? Is this a program that should receive any priority in Northern Ontario? What are the recreational facilities for which residents of these communities have the most urgent need?

#### Natural Environment Parks

Natural Environment Parks will provide a variety of non-intensive recreation experiences preferably within three hours drive of population centres. Natural Environment Parks will contain at least one provincially significant feature, either recreational, historical, or environmental and the best parks will contain all three kinds of features. A minimum of one major Natural Environment Park (15,000 acres) is desired per site region, however, no upper limit as to numbers of parks is set.

#### Discussion:

The Northwestern Region includes all or parts of eight site regions. Presently there are five Natural Environment Parks in the Planning Region but only two are of a size that could be called major, they are Sibley (60,000 acres) and Neys (7,800 acres). To represent all the site regions it would be necessary to establish five additional Parks.



What is the relationship between natural environment parks and Crown land in providing extensive recreation opportunities? Perhaps the number of parks of this type would vary depending on the need for this form of recreation and the availability of such opportunities from nearby Crown lands.

### Wilderness Parks

A wilderness park is a substantial area (100,000 - 600,000 acres) where the impact of man is largely unnoticable. A minimum of one Wilderness Park is desired per site region. In addition, there should be one wilderness zone (of 5,000 acres or more) in a Natural Environment Park per site region.

### Discussion:

Quetico and Winisk River Provincial Parks currently offer wilderness recreation in the Region. In addition, the Irregular Lake Park Reserve and Pukaskwa National Park will also be components of the wilderness system when they are brought on-line. In order to achieve the proposed wilderness parks policy, three additional wilderness areas are required. These should be in site regions 3S, 5S and 3W if possible.

The first question arising out of this proposed policy is: "Is wilderness really needed, and if so, why?"

This is a question that has province-wide implications but a question that, because the north is the only major existing reservoir of such areas, requires full study and understanding by northern residents themselves.

Assuming that the first question noted above can be answered positively then a whole series of subsequent planning questions can be posed:

Is the size range recommended acceptable?

Is the use of the site region as a basis of natural selection justifiable?

Can a linear corridor be used to replace a block area designation?

What are the best potential areas?

Based upon some satisfactory measurement criteria what would the effect of establishing such areas have on other resource uses?

Can the location of these areas in this region adequately serve the needs of all Ontario residents?

#### Natural Areas and Nature Reserves

Natural areas are to be used primarily for scientific study but may also be used for certain interpretive and educational programs as well. A minimum target of at least one ecological reserve (at least 25 square miles) representing each of the 13 site regions is desired.

In addition, smaller reserves may be necessary to represent components that may be missing from the larger area.

Natural areas may be designated as individual areas or as part of other provincial parks.

#### Discussion:

It would be the intention that Nature Reserves be designated within the Wilderness and Natural Environment Parks wherever possible. This would ensure greater protection for the reserves, and at the same time be more efficient in terms of land and resource utilization.

#### Historical Parks and Reserves

The objective is to provide opportunities (scientific, educational and recreational) for exploring and appreciating the basic themes representing human development in this Province in the sites which best represent those themes. In addition to specific sites it will also be important to identify and preserve corridors of outstanding significance.

### Trails

Corridors for all forms of linear recreation are to be provided which connect urban areas to a wide variety of Ontario's natural and cultural landscape. These routes will provide a variety of recreation opportunities including hiking, cycling, horseback riding, snowmobiling, and cross country skiing, as well as interpretation of our natural and cultural heritage.

#### (1) General Recreation Areas

In Northwestern Ontario the greatest amount of outdoor recreation occurs on Crown land rather than within organized parks. Therefore it will be desirable to designate a variety of areas for primary recreation use especially for low or medium intensity use.

### Discussion:

Setting aside general Crown land areas for recreation use has the advantage of permitting other uses such as forestry and mining. Since parks preclude mining it would be impossible to establish recreation areas in certain parts of the region if parks were the only means of doing so.

On the other hand, the approach of designating general Crown land areas for recreation use means that a fee from the users is difficult or impracticable to collect.

(e) Cottaging

Proposed policy for cottaging is to maintain the present relative position as a major form of recreation. A variety of leased cottage lots will be made available ranging from fully serviced clusters to unserviced dispersed locations.

Cottaging opportunities will only be made available where there is no conflict with public recreation and leases will be the only means of lot disposal. Canadians will be given preference in acquiring lots on Crown land.

Discussion:

Present number of resident cottages in Northwestern Ontario is 8,200. To maintain the same relative position of cottagers to the year 2000 an additional 4,100 cottage lots would be required. Assuming that most lots in the Region will come from Crown land this would mean about 150 new lots per year from the Region.

## 9. Energy

Ontario Hydro has stated that the energy production policy will be to meet the demand which in the case of electric power is increasing at a rate of 7 percent per year. This will be satisfied by the construction of both fossil fuel and nuclear powered generating facilities in the Region.

Additional hydro generating facilities will not likely be significant in meeting the future electrical demands of the Region.

## 10. Fire Management

Fire is not a land use, however the consequences of fire or the exclusion of fire will in one way or another affect the use of land. Therefore fire management considerations should be included in the Strategic Land Use Plan.

Provincial policy identifies "life and real property", in that order, as top priority for protection from fire. Other values are rated in accordance with their impact on the economy of the Region.













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